



Teacher education is a deeply pedagogical process rooted in values, ethics, and the social purpose of schooling. Globally, it sits at the core of educational quality and fairness, as research in comparative and international education demonstrates: the training of teachers directly influences students' learning chances, social inclusion, and the democratic aims of schools. Teachers are not simply transmitters of curricula, but active professionals whose convictions, reflective skills, and ability to manage the complexities of classroom life give shape and substance to the educational experience itself.

The pedagogical dimension of teacher education frames teaching as a relational, context-aware, and ethically grounded profession rather than just a set of procedural skills. From a research perspective, this demands robust research methodologies that can critically examine the complex realities of schools and inform evidence-based policies. Equally important is the connection between theory and practice, which helps to bridge the persistent gap between universities and schools.

The contributions gathered in this volume reflect the richness and diversity of experiences showcased during the ATEE Spring Conference 2024, held at the University of Bergamo from May 29 to June 1, 2024. The volume presents 70 selected papers out of more than 300 presented by researchers representing over 40 countries.

This broad spectrum of studies highlights promising directions that can inspire renewed inquiry and concrete proposals aimed at improving contemporary educational systems.

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ATEE Spring Conference 2024

## ATEE Spring Conference 2024

### Teacher education research in Europe: trends, challenges, practices and perspectives

May 29<sup>th</sup> – June 1<sup>st</sup>, 2024  
S. Agostino, Bergamo



Edited by Nicole Bianquin and Francesco Magni





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# BOOK OF PROCEEDINGS

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# **Cultivating Inclusive Education: A Collaborative Journey of Secondary School Teachers in Promoting Cognitive and Linguistic Accessibility through Picture Books and AAC**

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## **Abstract**

This contribution describes an action-research initiative carried out by secondary school teachers who formed a local network to address a pressing need identified in their everyday practice. Confronted with students presenting complex communication needs, these teachers faced the challenge of guaranteeing these students' right to participate in cultural life, as mandated by Article 30 of the 2006 UN Convention on the Rights of Persons with Disabilities. The outcome is a picture book, translated into AAC symbols, that tells the story of Telemachus's journey.

**Keywords:** picture book; literature; AAC symbols; action research; inclusive education.

## 1. Introduction

In this paper, we present an action-research project aimed at designing and creating a picture book with text translated into symbols of Augmentative and Alternative Communication (AAC). The picture book offers a simplified version of the story of Telemachus, son of Odysseus, as recounted in the *Odyssey*, with the intent of fostering the learning of cultural content and participation in the social practices typical of daily school life for students (grades 9–14) with intellectual disabilities and complex communication needs (Angelone & Festa, 2024).

In our action-research project, ethical goals have taken center stage, consistent with the latest developments in the social sciences (Scheper-Hughes, 1995; Burawoy, 2005), which emphasize the extra-scientific rationale behind research activities. In Italy, this perspective has been revisited more recently by Porcellana and Stefani (2016), as well as by Semi and Bulzoni (2022).

This initiative arose from our everyday practice as specialized support teachers in IIS Giulio, a secondary school in Turin, Italy, where we are committed to promoting inclusive education. On the initiative of one of us, and based on the needs of certain students, a large working group was formed, bringing together representatives from the world of education, universities, and the third sector. Together, we collaborated to produce the picture book as the concrete outcome of a shared cultural and practical effort. We hope that this article conveys the complexity of the collaboration, which involved two different schools and a diverse network of external parties whose specialized contributions were crucial for achieving our goal.

Viewing access to literary works as an essential tool for advancing inclusive practices, our work aligns with the rights framework promoted by the 2006 UN Convention (Curto & Marchisio, 2020). Indeed, the ability to enjoy high-quality cultural content is an inalienable right, to be understood both as a guarantee of an inclusive education system (Art. 24) and as the opportunity for full participation in cultural life (Art. 30).

After outlining our objectives and theoretical framework, we will present our methodological strategies, paying particular attention to the collaborative path undertaken in our action-research project.

## 2. Inclusive Education and Accessible Narratives

Italian school regulations encourage shared educational pathways in a “school for all,” covering every order and level (Bruschi, 2023). Nevertheless, various studies highlight the concrete difficulties in turning these principles into fully inclusive teaching practices, especially in upper secondary schools (Dell’Anna et al., 2023). Our daily work in the context where this action-research project took shape has confirmed that such difficulties can be traced, at least in part, to the lack of appropriate teaching materials to support an integrated educational approach that meets the varied educational needs found in classrooms. In particular, there is a notable shortage of materials specifically designed to fully engage students with intellectual disabilities and complex communication needs.

The exit profiles for students in upper secondary school (ISCED 3) emphasize goals and objectives related to cultural aspects. Although over the years the idea of a fixed list of required readings has weakened, certain texts continue to hold an indispensable place. For this reason, we chose to work on the *Odyssey*, a classic of literature traditionally encountered in educational settings.

The decision to work with literature also stems from recognizing the dual value of narratives: on the one hand, the cognitive component tied to the acquisition of cultural content; on the other, the strong social component related to the pleasure of telling and listening to stories. Accordingly, we set out to promote the usability, cognitive accessibility (Ciaccheri, Cimoli, & Moolhuijsen, 2020), and comprehensibility (Lumbelli, 2009) of cultural content, regardless of

the degree of intellectual disability or communication needs of the students. While also acknowledging the value of partial outcomes, we drew on the mental model theory (Johnson-Laird, 1983), which posits that understanding a text means constructing a clear, coherent mental representation of it. In this light, we believe that the concepts of cognitive accessibility and usability describe modes of cognitive interaction with cultural content that do not necessarily require complete mastery, yet they pave the way for the social dimension of narrative. The social value of storytelling has been highlighted by Bruner (1986).

Once we had precisely identified the need emerging from our context, we endeavored to find an effective tool capable of seamlessly integrating into teaching/learning processes while broadly encouraging the social participation of all students. We decided to develop a picture book designed for read-aloud sessions, enhanced by visual resources such as illustrations and symbols of Augmentative and Alternative Communication (AAC).

AAC symbols, derived from specific clinical practices, take the form of pictograms associated with words, serving to supplement or replace verbal language for individuals with complex communication needs. Our work fits into an existing practice already widespread in the Italian context, where AAC is also used to make narrative texts accessible that do not have an immediate communicative function (Costantino, 2011). The decision to employ AAC symbols was supported by routine observations in the school environment, indicating that their presence extends the attention span of students with intellectual disabilities and complex communication needs during read-aloud sessions. This evidence, noticed in the field, is also supported by early research findings (Dalai et al., 2019).

Opting to create a picture book with symbols was merely the first in a series of decisions we made. A decisive impetus to the action-research project came from establishing a solid partnership with a third-sector entity in the City of Turin (the "La biblioteca dell'inclusione" of the Paideia Foundation), in which professionals work who have extensive experience in AAC-based translation and children's publishing.

From this fruitful encounter emerged a non-linear process that led us to establish precise boundaries around the story to be told, explore new textual forms, and delve into the complexities of symbolization processes. The following paragraphs will address these aspects and the challenges encountered along the way.

### **3. Picture Books: A Model for Accessible Narratives**

In this section, we focus on picture books, publications characterized by a complex interplay of verbal and visual text in a communicative and semiotic balance (Terrusi, 2012). This interdependence underlies the meaning-making process on which the story is built. Picture books, long a part of children's literature (Boero & De Luca, 2009), are specifically designed for shared read-aloud sessions involving both adults and children. However, the concept of the crossover picturebook is particularly relevant, as it indicates certain picture books capable of reaching audiences of different ages simultaneously: children and adults engage with the text in different ways, allowing for a collaborative and egalitarian reading experience (Beckett, 2012).

In Italy, interest in picture books dates back to the 1970s, with Antonio Faeti's studies on illustration and the practical work of Lucia Lumbelli and Margherita Salvadori, who focused on picture books in preschools, addressing learning objectives, practices, and methodologies (Faeti, 2011; Lumbelli & Salvadori, 1977). More recently, Marcella Terrusi has provided a systematic analysis of picture books (Terrusi, 2012).

Building on this model, we adapted picture books to increase textual comprehensibility. Illustrations—a key feature of this medium—were conceived as a tool to support the process of constructing the mental model of the story (Clark & Lyons, 2010). We organized the narrative into sixteen two-page spreads. As suggested by Costantino (2012, pp. 198–200), we placed the illustration on the left page,

while the text appears on the right. Thus, the image anticipates and summarizes the textual content, providing the context which, according to Oakhill, Cain, and Elbro (2015), proves particularly effective when presented before the reading.

To achieve this outcome, the illustrations needed to be original and developed in close synergy with the text. Consequently, the action-research group expanded even further, involving the Museum of School and Children's Book (MuSLI) of Turin and another educational institution, the "Passoni" Art High School in Turin. In this enlarged team, the decision was made to invite students from the Book Design track at Passoni High School to create the illustrations, under the supervision of specialized teachers.

A pivotal moment in choosing the illustrations took place during read-aloud sessions aimed at testing the images' ability to capture the attention of students with intellectual disabilities and complex communication needs. Once validated, the illustrations were incorporated into the picture book to make reading more accessible and to facilitate the construction of a coherent mental representation of the story.

#### **4. Picture Books in AAC: Dissemination and Translation Models**

Over the years, a specialized area has emerged—picture books with text translated into the symbols of Augmentative and Alternative Communication (AAC), which can be considered a subset of picture books. As mentioned earlier, the introduction of AAC symbols, originally developed as a clinical practice to facilitate communicative acts, constitutes an adaptation aimed at helping people with complex communication needs—often associated with intellectual disabilities, speech disorders, or autism spectrum disorders—access and understand content. Over time, AAC has come to support not only expressive communication but also the reception of messages.

In the past two decades, numerous initiatives led by publishing houses, groups of teachers, cultural institutions (including libraries and museums), associations, and third-sector foundations have contributed to the spread of this subset of picture books. Concentrating specifically on the role of libraries, Gasparello (2015) meticulously recorded and described the initiatives undertaken up to 2011. However, a more recent and comprehensive review that would offer an updated perspective on the evolution of these projects is still lacking.

Pending a systematic analysis, we can only sketch a broad overview of this production, based on a few key parameters. On the one hand, there has been a quantitative increase in available books, accompanied by a "mainstreaming" process that has moved these experiences beyond traditional clinical settings to engage a wider and more diverse audience. On the other hand, one can observe a noteworthy methodological evolution, discernible in both the nature of the texts offered and the symbolic systems and translation methods used.

Regarding the "nature of the texts," picture books with text in symbols can be categorized based on whether the text is: (a) an integral translation of an original picture book, (b) the product of linguistic simplification, or (c) a text conceived from the start to be accompanied by symbols. Additionally, picture books can be distinguished by their translation methodology. A preliminary survey highlights two principal models: the InBook model, which translates each individual word into a symbol (making no distinction between content words and function words; see Costantino, 2012), and the "Libri per tutti" model, which uses an "agglutinative" approach, merging into a single symbol those groups of words that form a semantically unified core (Peiretti, Rubertelli, & Villa, 2022).

In any case, picture books with text in symbols systematically and consistently employ specific symbol systems throughout each volume. The most widely used in Italy are WLS (Widgit Literacy Symbols) and ARAWORD symbols. In our work, we chose to adopt the "Libri per tutti" model, assigning a single symbol to each group of words corresponding to one semantic core (Peiretti et al., 2022). At the same time, we opted for the WLS symbols, which appear within a frame where the corresponding word or words are shown in uppercase.

Furthermore, to strengthen coherence between the illustrations and the symbol translation, we decided to link proper names to symbols derived from elements in the illustrations themselves. For example, Telemachus's symbol reproduces the character's face as depicted in the images. Consistent with the approach previously adopted for traditional picture books, we believe that in this "symbol-based" version, images likewise play a crucial role in supporting comprehension: they provide a context that activates the meanings of words, helping to disambiguate and focus the reader's attention (Oakhill, Cain, & Elbro, 2015, pp. 97–119).

## **5. Text Simplification and Narration**

To simplify the text, we first drew inspiration from the newspaper *Due Parole*, directed by Emanuela Piemontese and Tullio De Mauro, from the European guidelines for linguistic simplification, and from controlled writing (or Easy to Read) practices. Specifically, we examined the literature on the "Due Parole" experience (Piemontese, 1991; Piemontese, 1996) and sought to transfer its findings to the simplification of literary texts.

We thus carried out two complementary operations: on the one hand, the simplification of the narrative; on the other, the simplification of vocabulary and syntax. Indeed, for linguistic simplification to facilitate comprehension, one must first address the overall organization of the text.

### **5.1 The Narrative**

The narrative simplification involved three lines of action. First, we aimed to enhance the narrative's concreteness. Next, we reduced the quantity of information provided (favoring text brevity). Finally, we addressed the need to lower the cognitive load.

As for "concreteness," simplification began even before any modification of the text itself—namely, at the stage of choosing the text type. We hypothesized that narrative texts would be simpler than expository texts because they feature more concrete elements: specific characters, actions, and events that are easy to identify (Oakhill, Cain, & Elbro, 2015, p. 172).

Nevertheless, the historical references found in the *Odyssey*—as in any classic—represent a potential obstacle to maintaining such concreteness. Therefore, we elected to reduce and soften these references so as not to hinder access to the content. This is not a modern adaptation but rather a text in which references to religious and social dynamics are deliberately toned down to avoid overburdening comprehension.

We then focused on text brevity, a criterion deemed fundamental by Piemontese (1991, 1996). To this end, we decided to cover only the story of Telemachus, excluding the entire *Odyssey*. Furthermore, we retained only the essential episodes, limiting the number of characters to seven, so as to keep the central meaning of the story in focus.

Finally, with the aim of reducing cognitive load (Sweller, 1988; Van Merriënboer & Sweller, 2005), we adopted the strategies of segmentation and sequencing. In line with segmentation, we rewrote the story into sixteen short episodes, each characterized by a specific time and place, told in a maximum of thirty symbol-words, and accompanied by a single illustration. Meanwhile, through sequencing, we narrated events in chronological order, aligning the fabula with the plot. This approach is particularly useful for promoting smoother comprehension, consistent with the notion that a familiar chronological sequence is more accessible (Stein & Glenn, 1982).

### **5.2 Vocabulary and Syntax**

From a linguistic standpoint, we adhere to controlled writing (or Easy to Read) practices, adopting the principle that the text should be planned according to the characteristics of its intended audience (Rabbi, 2020). As Piemontese (1996) argues, clarity or opacity in a text does not depend on absolute properties but on the relationship between the text's features and those of its readers.

In line with these guidelines, we favored short sentences, using coordination over subordination, and we chose words largely drawn from a basic vocabulary, avoiding nominalizations. Where possible, we repeated the subject rather than using pronouns, especially in situations where pronouns might

cause ambiguity. We primarily conjugated verbs in the indicative mood (active voice), in the present, present perfect, and simple future tenses. Moreover, we placed sentences on a single line or introduced line breaks where a pause would naturally occur during reading aloud.

In making these choices, we drew mainly on the Due Parole experience, the first and most significant Italian initiative focused on facilitated writing also intended for readers with intellectual disabilities. To these insights we added those contained in the European guidelines aimed at making information accessible to all.

Since these guidelines are designed for informational texts, we also reflected on the literary features, opting to maintain and adapt some formulaic expressions typical of the original work. These formulas, closely related to the oral context in which the *Odyssey* was born, suit read-aloud practices and the preferences of our audience. Furthermore, to facilitate the readers' identification with the characters, we made extensive use of dialogue.

We concur with Lumbelli (2009) that literary texts require two types of integration from the reader: one connected to comprehension, which follows rules similar to expository texts, and another connected to the pleasure experienced during reading, linked to the literary form and the surface structure of the text.

## 6. Conclusion

Despite the extensive adaptation process, our intention was to preserve the essential elements in such a way that the story would still, on the whole, maintain the features of a cultural product and, more specifically, a clear link to the original version. Indeed, we wished it to serve as an opportunity for sharing within the school context, and potentially as a prompt for discussion.

The story of Telemachus speaks explicitly to young adults facing the transition into adulthood and shaping their own life paths. For this reason, we felt it was crucial to maintain its character as a bildungsroman. From this perspective, the story can be read and interpreted at various levels, engaging the imagination and experiences of all young adults, with or without disabilities.

Telemachus, in fact, is a young man who feels alone, weak, and overwhelmed by a world of disrespectful, overbearing adults who leave him no room to grow up. To make this transition, he needs an independent life experience—a “journey” in which he shows himself that he can manage on his own, discovering along the way that he is recognized by adults beyond his family circle.

Although the *Odyssey* does not describe Telemachus's transition to the role of father and king, it depicts his encounter with the parental figures as one of equality, collaboration, and cooperation rather than care-taking: the boy has grown up and is ready to take his place in the world.

Likewise, for us—who guided and coordinated this project—it has been a wonderful social experience that brought us into contact with other educational contexts (the IIS Passoni) and extra-school entities (“La bottega editoriale” of the Paideia Foundation and Museum of School and Children's Book). From this experience, we have come away convinced that one of literature's functions is indeed to open up networks of shared meaning around the stories it tells.

## Bibliography

- Angelone, L., & Festa F. (2024). *Il viaggio di Telemaco*. Torino, Italy: Edizioni Paideia.
- Beckett, S. L. (2012). *Crossover picturebook: A genre for all ages*. London, UK: Routledge.
- Boero, C., & De Luca, P. (2009). *La letteratura per l'infanzia*. Torino, Italy: Einaudi.
- Bruner, J. (1986). *Actual Minds, Possible Worlds*. Cambridge, MA: Harvard University Press.
- Burawoy, M., (2005). For Public Sociology. *American Sociological Review*, 70: 4-28.
- Ciaccheri, M. C., Cimoli, A. C., & Moolhuijsen, N. (2020). *Senza titolo, le metafore della didascalìa*. Busto Arsizio, Italy: Nomos.
- Clark, R. C., & Lyons, C. (2010). *Graphics for learning: Proven guidelines for planning, designing, and evaluating visuals in training materials*. San Francisco, CA: Pfeiffer.
- Costantino, M. A. (2012). *Costruire libri e storie con la CAA. Gli IN-book per l'intervento precoce e l'inclusione*. Trento, Italy: Erickson.
- Curto, N., & Marchisio, C. M. (2020). *I diritti delle persone con disabilità. Percorsi di attuazione della Convenzione ONU*. Roma, Italy: Carocci.
- Faeti, A. (2011). *Guardare le figure. Gli illustratori italiani dei libri per l'infanzia (2nd ed.)*. Roma, Italy: Donzelli.
- Gasparello, A. (2015). *Libri per bambini (con bisogni) speciali: Le biblioteche pubbliche e la CAA*. Roma, Italy: AIB.
- Johnson-Laird, P. (1983). *Mental models: Towards a cognitive science of language, inference, and consciousness*. Cambridge, UK: Cambridge University Press.

- Lumbelli, L. (2009). *La comprensione come problema. Il punto di vista cognitivo*. Roma, Italy: Laterza.
- Lumbelli, L., & Salvadori, M. (1977). *Capire le storie: Un modo di usare i racconti illustrati nella scuola dell'infanzia*. Milano, Italy: Emme.
- Oakhill, J., Cain, K., & Elbro, C. (2015). *La comprensione del testo: Dalla ricerca alla pratica*. Roma, Italy: Carocci.
- Peiretti, A., Rubertelli, C., & Villa, C. (Eds.). (2022). *La bottega dei libri in simboli. Un approccio logico-semanticò alla traduzione*. Torino, Italy: Fondazione Paideia.
- Piemontese, M. E. (1991). *Capire e farsi capire. Teorie e tecniche della scrittura controllata*. Napoli, Italy: Tecnodid.
- Piemontese, M. E. (1996). *Scrittura e leggibilità: «Due parole»*. In M. Cortelazzo (Ed.), *Scrivere nella scuola dell'obbligo (Quaderni del Giscel, pp. 151-167)*. Firenze, Italy: La Nuova Italia.
- Porcellana, V., & Stefani, S. (2016). *Processi partecipativi e pratiche collaborative per progettare il futuro*. In V. Porcellana & S. Stefani (Eds.), *Processi partecipativi ed etnografia collaborativa nelle Alpi e altrove (pp. 7-22)*. Alessandria, Italy: Edizioni dell'Orso.
- Rabbi, N. (2020). *Scrivere facile non è difficile. L'efficacia della scrittura Easy To Read*. Molfetta (BA), Italy: La Meridiana.
- Scataglini, C. (2017). *Facilitare e semplificare libri di testo. Adattare contenuti disciplinari per l'inclusione*. Trento, Italy: Erickson.
- Scheper-Hughes, N. (1995). *The Primacy of the Ethical: Propositions for a Militant Anthropology*. *Current Anthropology*, 36: 409-440.
- Semi, G. & Bulzoni, M. (2022). *L'osservazione partecipante. Una guida pratica*. Bologna, Italy: Il Mulino.
- Stein, N., & Glenn, C. (1982). *An analysis of story comprehension in elementary school children*. In R. Freedle (Ed.), *New directions in discourse processing (pp. 53-120)*. Norwood, NY: Ablex.
- Sweller, J. (1988). *Cognitive load during problem solving: Effects on learning*. *Cognitive Science*, 12, 257-285.
- Terrusi, M. (2012). *Albi illustrati. Leggere, guardare, nominare il mondo nei libri per l'infanzia*. Roma, Italy: Carocci.
- Van Merriënboer, J., & Sweller, J. (2005). *Cognitive load theory and complex learning*. *Educational Psychology Review*, 17, 147-177.