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Ariadne's Thread Metacognition for emancipatory rationality in education

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Abstract

Emancipatory rationality in education empowers individuals and promotes social justice. Metacognition and critical thinking play vital roles in supporting this approach by encouraging learners and professionals to reflect on their thinking processes, question assumptions, and develop the ability to engage critically with information. The research presented in this paper falls within the action research framework, which provides for the investigation to be conducted in the field based on close collaboration between researchers and practitioners. Action research aims to generate improvement and change in the context in which it is implemented. The roots of this approach can be found in Dewey's criticism of the traditional separation of knowledge and action and in Freire's idea of conscientization, the process of developing critical awareness through reflection and action. In their view, learning depends upon uncovering real problems and actual needs. Starting from four critical incidents, the paper demonstrates how reflective practices based on metacognition can be used to train education professionals. Metacognitive work is essential for analyzing problems and responsibilities and identifying any distortions preventing educational action from responding effectively to people's needs. When faced with an educational problem, the professional needs to be able to use two forms of rationality: heuristic-reflective and emancipatory. The first type of rationality guides through the investigation of the experience to build the necessary knowledge to interpret and manage it. The second makes the educator an agent of transformation and change.

Keywords: education, reflection, metacognition, critical incident, emancipatory rationality.

1. Introduction

When faced with critical educational situations, how we think is crucial to determining how we act and the results obtained. An educator must be able to optimize his cognitive processes and, equally important, to optimize the mental processes of the people he works with and for, especially if they have particular difficulties or inconveniences (Zanazzi & Gramigna, 2023).

This paper analyzes and discusses how we think in critical educational situations. We are adults with responsibility in education, wanting to be aware and accompany others in becoming aware. Our thoughts can be our allies and become like the thread that, in the myth, Ariadne gave to Theseus to ensure that he did not get lost in the labyrinth of Knossos while looking for the Minotaur to kill him. On the contrary, our thoughts can become our enemies, leading us to lose ourselves and carry out actions that improve neither the well-being of the people we work for nor our own.

The paper seeks to answer the following research question: *How can reflective practices based on metacognition be used to train education professionals?*

Examples of metacognitive work carried out with students in education sciences, teachers, and professionals in the education field are analyzed to highlight the differences between conservative and transformative thinking. When faced with an educational problem, the professional needs to be able to use two forms of rationality: heuristic-reflective and emancipatory. The first type of rationality guides through the investigation of the experience to build the necessary knowledge to interpret and manage it. The second makes the educator an agent of transformation and change (Striano, 2002).

2. Theoretical framework

The research work presented in this paper falls within the action research framework (Lewin, 1946), which provides for the investigation to be conducted in the field based on close collaboration between researchers and practitioners (Mortari, 2007; Sorzio, 2019). Action research aims to generate improvement and change in the context in which it is implemented. The roots of this approach can be found in Dewey's (1938) criticism of the traditional separation of knowledge and action and in Freire's (1970) idea of conscientization, the process of developing critical awareness through reflection and action. In their view, learning depends upon uncovering real problems and actual needs.

The broader concept of reflective thinking is at the root of this investigation strategy. Many authors have underlined its importance in education. Among them, Kolb (1984) described the experiential learning cycle in which the transformation of experience creates knowledge; Mezirow (1991) introduced the concept of transformative learning, based on a change in the frames of reference that build assumptions and expectations in the minds of adults; Schön (1983, 1987) described reflection-in-action, the process that allows professionals to reshape the situation while it is happening, and reflection-on-action taking place after the experience, generating both new understandings of the experience and a change in the situation; Mortari (2003, 2013) intends reflection as cultivating mind's life and giving meaning to the personal experience. According to many influential authors, narration is a nourishment for reflective thinking. Reflective autobiography can, therefore, be an effective strategy for reworking and re-signifying experiences (Bruner, 1987; Demetrio, 1996; Mortari, 2003, 2013).

2.1 Methods

"Critical incidents" are events or situations out of the ordinary, unexpected, or challenging to manage. These situations must be thoroughly analyzed to understand their complexity (Bastianoni e Zanazzi, 2023; Fabbri & Romano, 2017; Salerni & Zanazzi, 2018; Zanazzi & Gramigna, 2023). When faced with these situations, educational professionals must stop, reflect, and examine the mental patterns and thoughts that guide their reactions and actions. Metacognitive work is essential to analyze problems and responsibilities and identify any distortions preventing educational action from responding effectively to people's needs.

Critical incident analysis can be used as a strategy to train the reflective thinking of education professionals. The method was first implemented in the 1950s (Flanagan, 1954) to observe and identify factors responsible for success and failure in pilot training. Since then, it has been further developed and applied to various management, services, and social sciences contexts.

In the research presented in this paper, three questions are asked to stimulate critical analysis and reflection on critical incidents: 1. what is the problem? 2. who should take charge of it? 3. what could/should be done?

3. In the field: from conservative to transformative thinking

In this section, four critical incidents will be presented. They were reported by trainees in education sciences (the first and second ones), a teacher (the third), and an educator (the fourth), and they are analyzed to exemplify how metacognitive work can lead to better responses to people's needs. The situations described concern crucial issues of education: rules and discipline, self-determination, behavioral crises, and the formation of values.

Table 1: Discussion of a critical incident (Rules and discipline)

Undisciplined Chiara

"Chiara is a 2-year-old girl who attends the nursery where I am doing my internship. Chiara never sits still during teaching activities routines and does not listen to what the educators tell her. She runs back and forth in the dining room if they ask her to sit down. When it is time to sleep, she screams, runs, and makes noise, preventing other children from falling asleep. The teachers scold and punish her without achieving any results. I also tried to scold her, but I could not make her change her behavior" (Student trainee in education science).

Conservative thinking

What is the problem?

A little girl behaves incorrectly and does not listen when her teachers scold her.

Who should take charge of this problem?

The problem lies with the child, who must learn to respect the rules of coexistence in the nursery.

What could/should be done?

Adopt shared strategies, scolding and punishing Chiara until she learns to listen.

Trasformative thinking

What is the problem?

The teachers' communication style, based on reprimand and punishment, needs to be revised to meet the expressive needs of a two-year-old girl.

Who should take charge of this problem?

The problem is the responsibility of the educators, who should modify their methods of approaching the child based on her age and personality.

What could/should be done?

Use playful methods. Indulge the child's desire to explore the world by gradually introducing rules and limits but always "playing".

Source: data collected and re-elaborated by the author

Conservative thinking crosses our minds as adults who grew up in contexts in which education was conceived as surveillance, imposition of rules from above, "infusion" of notions, and enforced through the fear of punishment. However, we must acknowledge that discipline is neither the means nor the end of educational interventions but rather the outcome of effective educational interventions, which make people feel part of a community (Dewey, 1933; Montessori, 1952; Rousseau, 1946; Siegel & Bryson, 2016). Starting from this assumption, how can we re-read Chiara's situation?

We cannot just punish unwanted behavior. We need to investigate and understand the submerged part of the iceberg. At the age of two, a child experiences rapid growth and development. We shouldn't expect her to listen to an adult who speaks and imposes rules, and it is not even correct to think that she carries out certain behaviors to challenge the adult or the rules. We are the ones who must first listen to the child, making her feel welcomed and understood in her needs. We must accompany her in his process of discovering the world, adopt playful methods to involve and entertain her, and play together. Reprimand and punishment, on the other hand, do not help children to internalize the rules of coexistence.

This reflection helps us to restructure the problem analysis and, consequently, to revise the intervention strategies.

Table 2: Discussion of a critical incident (Self-determination)

The useless belt

"In a residential center for older people with disabilities, an English-speaking 90-year-old gentleman is in a wheelchair with a fixing belt as a restraint measure. He is remarkably intolerant, always trying to take it off, and sometimes he screams. He cannot communicate his discomfort differently due to his language barrier.

Last week, the physiotherapist entered the facility and, seeing the situation, wondered if the gentleman could walk and if the belt was still valuable.

We tried to lift him together and found that he could walk without support.

He sat with me in the activity room for almost two hours without trying to run away, so there was no danger. Unfortunately, we had to make him sit back in the wheelchair. We put the belt in front as a restraint because the residential center staff is required to implement the measures decided by the Health Directorate. Furthermore, the man's relatives feel better knowing he cannot move alone because otherwise, he might be in danger" (Student trainee in education science).

Conservative thinking

What is the problem?

An older man who has to wear a restraint belt shows intolerance and problematic behaviors.

Who should take charge of this problem?

The man must accept the restraint measure that has been adopted for his good and to avoid accidents.

What could/should be done?

Firmly reiterate that the Health Directorate decides the measures for the good of the patient, and therefore, they must be implemented without exception.

The facility's personnel must respect the decisions made by their superiors and the man's family.

Trasformative thinking

What is the problem?

An older man is forced to wear a restraint belt, which limits his movements but is no longer necessary because the facility's Health Directorate has not reviewed his situation nor updated the measures to be implemented.

Who should take charge of this problem?

The educators and the health care social workers of the facility who interact daily with the man, as well as the medical and paramedical staff who monitor his situation, must re-evaluate the measures to promote the person's autonomy as much as possible.

What could/should be done?

Since the man can walk and sit on his own and there are no more dangers for him, it is possible to gradually remove the belt to allow him to move, exercise his independence, and improve his quality of life. The facility staff must question the decisions made by their superiors if the latter is not functional for the well-being and promotion of the patient's autonomy and self-determination.

Source: data collected and re-elaborated by the author

In this second example, conservative thinking does not recognize the right to selfdetermination of a person with disabilities. The educator "hides" behind the institution's procedures and the family's provisions.

At the level of culture, policies, and practices, the belief persists too often that people with disabilities cannot make decisions, have and express opinions, actively participate, and significantly contribute to society. For a long time, and still essentially today, it was believed that only others (parents, assistants, services) could represent their requests and needs (Zanazzi, 2023).

Scientific evidence shows that people with disabilities are less self-determined than those without disabilities, not only due to their condition but also because of the lack of opportunities to make decisions and choices. Research indicates that it is necessary to support, from an early age, the development of self-determination skills of people with intellectual disabilities by providing them with suitable environments and support to apply and use these skills fully (Lepri, 2016; Ryan & Deci, 2000; Wehmeyer et al., 2003).

Table 3: Discussion of a critical incident (Behavioral crisis)

Gianni's crisis

"Gianni, 14 years old, is doing his schoolwork. The teacher asks him to correct a spelling mistake, but he refuses. The request is repeated. Gianni reacts by throwing a backpack, a chair, and a glass bottle, which breaks into a thousand pieces. shouting, he undresses completely. The classmates are taken out of the classroom, and the teacher, with the help of a colleague, manages to contain the physically" (High school teacher).

Conservative thinking

What is the problem?

A 14-year-old boy challenges his teacher's authority and refuses to do what she asks of him.

Who should take charge of this problem?

The boy must learn to do what is required of him for his own good, and his family must educate him to respect the teachers and the school.

What could/should be done?

Suspend the boy from school to punish him for his actions. Then, summon the family to report what happened.

Trasformative thinking

What is the problem?

A teacher's authoritarian style triggered conflicting reactions in a 14-year-old boy with behavioral problems. The situation exploded with dangerous repercussions.

Who should take charge of this problem?

The teachers must understand the child's need to leave an authoritarian dynamic and enter a relational dynamic.

What could/should be done?

Work with Gianni and his family to understand the reasons for the discomfort that generates the behavioral crises. Reflect and monitor situations to understand the antecedents of crises. Intervene on the context and relational methods to reduce the risk of crisis.

Source: data collected and re-elaborated by the author

In this third example, conservative thinking focuses on the episode and looks for the "culprits" but doesn't investigate the profound reasons for the crisis. The adult in difficulty attributes the reasons for the crisis to the child's disorder/disability (for example, "he does this because he is autistic"), his intolerance for authority, or the lack of education on the part of the family. The result is a lack of responsibility due to thoughts such as: "School is not a mental health center!" or "I am not a psychologist; I'm a teacher!".

However, behavioral crises are "everyday emergencies" that teachers and educators must be able to interpret correctly. When analyzing an episode of behavioral crisis, it is necessary to start from the assumption that the problematic behavior is involuntary and arises from profound suffering. To correctly define the problem, we must ask ourselves what function the problematic behavior has. Finally, the teacher/educator must believe he can help and support those in difficulty.

Gianni does not need a policeman officer who supervises and punishes him but an adult who sees, welcomes, listens to him, and helps him learn functional strategies to deal with and overcome frustrations.

Table 4: Discussion of a critical incident (Formation of values)

Luna's meals

"Luna, 16 years old, tells her family that she wants to become a vegetarian, not to make animals suffer, and to respect the environment. She refuses to eat meat and fish at lunch and dinner with her family. Her parents do not ask for explanations; their response is: *Do what you want; this too will pass*" (Educator).

Conservative thinking

What is the problem?

A 16-year-old girl makes a choice that her parents disagree with, complicating family organization.

Who should take charge of this problem?

There is no problem. Teenagers often change their minds for trivial reasons. There is no point in arguing; sooner or later, she'll retrace her steps.

What could/should be done?

Let her do it. She will realize that the rules are different in the family, and it will be too difficult for her to make her own choices.

Trasformative thinking

What is the problem?

A 16-year-old girl is defining her values in relation to the environment and animals, deciding to become a vegetarian. Her family does not want to understand the reasons for her choice.

Who should take charge of this problem?

Even if they disagree, the girl's family must understand and respect her choice.

What could/should be done?

The parents must let her carry out her choice and provide her with the necessary emotional, informational, and material support.

Source: data collected and re-elaborated by the author

In this fourth example, conservative thinking does not see an adolescent building a new identity. The adult who does not show interest in the adolescent's moral choices and does not dialogue with her cannot accompany her on her growth path. This way, she is left alone. Saying "do as you wish" means "your decisions have no value to me"; therefore "you have no value".

The process of building identity is the common thread of the developmental tasks in adolescence. We can see adolescence as the search for a path, choices, and commitment (Pietropolli Charmet & Cirillo, 2010). Moral development implies defining one's values, respecting them (coherence), and also finding recognition from others (relationships). One of

the areas in which adolescents define themselves as moral subjects is that of environmental justice. Food choices can be a way for adolescents to take a stand.

Adult guidance is essential to accompanying the adolescent in her path of growth and self-definition as a moral subject. The search for sources, the critical processing of information, and the possibility of arguing and "defending" one's choices through dialogue are fundamental. Without this opportunity, any choice may remain superficial or ideological. Adults should not think teens are "just immature and need to grow up". They should rather understand that adolescence is an opportunity and a precious resource.

Our cultural attitude toward adolescents can foster or inhibit their movement toward becoming more and more integrated as individuals who are also integrated as members of a larger society, welcoming them in to participate in how we shape our world (Siegel, 2014).

4. Discussion

In the daily life of educational work, there is sometimes a need for more space for design thinking, analysis of problem situations, self-evaluation, and redesign. Suppose it is true, as Dewey (1929) taught us, that the sources of the science of education are found in the minds of individuals engaged in educational activities. In that case, it is equally valid that the latter are not always aware of the problematic situations they encounter and the factors that generated them: their actions are sometimes the result of intuitions or the expression of routines. It follows that reflection on experience is the professional's task as much as action: both nourish and help grow, and both are essential for developing competence like earth, water, and the sun are for a plant. Thinking about experience means knowing how to place oneself at a "critical distance" from practice to be able to identify the problematic aspects that need to be modified and evaluate the actions taken for improvement (Bastianoni & Zanazzi, 2023).

To transform experience into learning, it is essential to know how to think about it, activating processes of reflection and re-elaborating one's own experience towards new experiences (Kolb, 1984; Mortari, 2003, 2013). These are the premises of the experiential learning model, in which learning is not understood as the mere acquisition of content but as a change in one's frames of reference, as a transformation of oneself through the reinterpretation of experience. In this theoretical framework, learning is therefore conceived in terms of process rather than result: ideas are not fixed and immutable elements of thought but are formed and reformed during experience. The experiential learning cycle is neverending (Kolb, 1984). Reflection represents a fundamental process for the professional who must rely on theoretical knowledge, previous experience, and knowledge of the current situation to decide the best solution.

We have argued that knowing how to think about experience is essential so that it becomes the substance of learning. This mental posture, however, does not arise from routine and habit but, on the contrary, from situations that raise questions and doubts, which require taking new paths (Jedlowski, 2008). Reflective thinking arises from a problematizing attitude, from a critical gaze, and from an intelligent observation of reality capable of hypothesizing alternative paths and different worlds (Dewey, 1933).

When a situation raises doubts and involves difficulties, the person may adopt a defensive and avoidant attitude or decide to face it. Only in this second case does the reflection begin. As Schön (1983) states, problems do not present themselves to our eyes alone: we identify them as such, focus on them, and interpret them in the light of our beliefs. The temptation to refer to consolidated patterns, routines, and procedures is strong. With it, there is a significant risk of losing that experiential, "practical" knowledge, which is essential in open situations that are highly problematic, such as those faced in the educational sector (Mortari, 2003).

Reflection generates uncertainty, pushing the mind toward a profound analysis of lived reality, becoming a source of new knowledge, and explicitly reconquering everything we implicitly are and do (Merleau-Ponty, 1969).

Therefore, reflective thinking arises from directly experienced situations that present themselves as uncertain, disturbed, and perplexed. It is born in a marshy terrain that presents dangers and unknown areas (Schön, 1983), and not in that stable terrain of habits and procedures for which we already have the map. It leads to experimenting and experiencing oneself in the world from new perspectives and appreciating new values.

The examples of reflective practice presented in paragraph 3 of this paper have demonstrated how heuristic and critical emancipatory rationality (Striano, 2002) can be trained in professionals. The first type of rationality guides through the investigation of the experience to build the necessary knowledge to interpret and manage it. The second makes the educator an agent of transformation and change. Both of these forms of rationality are necessary if we believe that the goal of education is not to adapt people to the world but to enable them to improve it.

When facing a critical incident, answering "What is the problem?" analyzes situations in depth, taking on different perspectives. Answering "Who should take charge of this problem?" and "What could/should be done?" helps to find cognitive distortions that could prevent educational action from responding effectively to people's needs and leads to identifying responsibilities to take action.

5. Conclusion

In learning theories, the fundamental role of social interactions in the construction of knowledge is now widely recognized. Starting from the works of influential authors such as Dewey, Piaget, Vygotsky, and Bruner, we've learned that humans acquire their knowledge within a culturally determined perspective, attributing meaning to things in concrete situations. A person's knowledge is not exclusively located in their mind but is situated in the contexts and places they frequent, distributed in the minds of others with whom they interact (Bruner, 1990).

According to this socio-constructivism paradigm, acquiring knowledge is situated, implying an active involvement of multiple subjects engaged in exchanging interpretations, mental representations, and arguments. The central ideas of socio-constructivism come from the criticism that knowledge derives exclusively from experience (behaviorism) or develops spontaneously with growth and interaction with the environment (cognitivism). Learning is simultaneously a process of individual cognition and a social and political process; knowledge includes basic and factual knowledge and the ability to use it critically. It is important to underline how, in this paradigm, the emergence of alternative points of view is a crucial factor in the learning process because it favors the restructuring of cognitive schemes and the production of new knowledge.

Accepting these assumptions, we must conceive reflection as a social and political activity. Interpreting education from a socio-constructivist perspective implies designing learning contexts in which learners must engage in confrontation to learn together to think about the experience. In interaction, one learns to develop a critical awareness of one's knowledge and shortcomings. In a confrontation, people are called upon to justify their assertions, which implies activating reflective processes (Bastianoni & Zanazzi, 2023; Salerni & Zanazzi, 2021).

Collaborative analysis of practical situations can illuminate cognitive biases that impede effective educational practices. By engaging in metacognition, educators can identify and

address these biases, enabling them to better respond to individual needs. This process empowers educators to promote justice and empowerment for others.

"If I am not in the world simply to adapt to it, but rather transform it, and if it is not possible to change the world without a certain dream or vision for it, I must make use of every possibility there is not only to speak about my utopia but also to engage in practices consistent with it" (Freire, 2005).

References

Bastianoni, P. and Zanazzi, S. (2023). Educatori in divenire. Percorsi formativi per il tirocinio Universitario, Parma: Junior.

Bruner, J. S. (1987). "Life as narrative", *Social Research*, vol. 54 (1), pp. 11-32.

Bruner J. S. (1990). Acts of Meaning, Boston: Harvard University Press.

Demetrio, D. (1996). *Raccontarsi. L'autobiografia come cura di sé*, Milano: Raffaello Cortina.

Dewey J. (1929). The sources of a science of education, New York: Horace Liveright.

Dewey, J. (1933). How we think. A Restatement of the Relation of Reflective Thinking to the Educative Process, Boston: D.C. Heath & Co Publishers.

Dewey, J. (1938). Logic, theory of inquiry, New York: Henry Holt.

Fabbri, L. and Romano, A. (2017). *Metodi per l'apprendimento trasformativo. Casi, modelli, teorie*, Roma: Carocci.

Flanagan, J.C. (1954). "The critical incident technique", *Psychological Bulletin*, vol. 51 (4), pp. 327-358.

Freire, P. (1970). *Pedagogy of the Oppressed*, New York: Seabury Press.

Freire, P. (2005). *Pedagogy of Indignation*, London: Routledge.

Jedlowski, P. (2008). Il sapere dell'esperienza. Fra l'abitudine e il dubbio, Roma: Carocci.

Kolb, D. (1984). Experiential Learning: Experience as the Source of Learning and Development, Englewood Cliffs: Prentice Hall.

Lepri, C. (2016). La persona al centro. Autodeterminazione, autonomia, adultità per le persone disabili, Milano: Franco Angeli.

Lewin, K. (1946). "Action research and minority problems", *Journal of Social Issues*, vol. 2 (4), pp. 34-46. https://doi.org/10.1111/j.1540-4560.1946.tb02295.x

Merleau-Ponty, M. (1969). *The Visible and the Invisible*, Evanston: Northwestern University Press.

Mezirow, J. (1991). Transformative Dimensions of Adult Learning, San Francisco: Jossey-Bass.

Montessori, M. (1952). La mente del bambino. Mente assorbente, Milano: Garzanti.

Mortari, L. (2003). *Apprendere dall'esperienza*. *Il pensare riflessivo nella formazione*, Roma: Carocci.

Mortari, L. (2007). Cultura della ricerca e pedagogia, Roma: Carocci.

Mortari, L. (2013). Aver cura della vita della mente, Roma: Carocci.

- Pietropolli Charmet, G. and Cirillo, L. (2010). *Adolescienza. Manuale per genitori e figli sull'orlo di una crisi di nervi*, Milano: San Paolo.
- Rousseau, J. J. (1946). Émile ou de l'éducation, Paris: Larousse.
- Ryan, R. M. and Deci, E. L. (2000). "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being", *American Psychologist*, vol. 55 (1), pp. 68–78. https://doi.org/10.1037/0003-066X.55.1.68
- Salerni, A. and Zanazzi, S. (2018). "Riflettere insieme su casi reali per trasformare l'esperienza in apprendimento. Strategie per la formazione dei funzionari giuridico-pedagogici neoassunti", *Formazione, lavoro, persona. Cqia Rivista*, vol. VII (25), pp. 55-69. Available: https://cqiiarivista.unibg.it/index.php/fpl/article/view/365.
- Salerni, A. and Zanazzi, S. (2021). Esperienza maestra di vita. Un progetto formativo per il tirocinio universitario, Lecce: Pensa Multimedia.
- Schön, D. A. (1983). *The Reflective Practitioner: how professionals think in action*, London: Basic Books.
- Schön, D. A. (1987). Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions, San Francisco: Jossey-Bass.
- Siegel, D. J. (2014). *Brainstorm: the power and purpose of the teenage brain*, Melbourne-London: Scribe.
- Siegel, D. J. and Bryson, T.P. (2016). *No-drama Discipline. The whole-brain way to calm the chaos and nurture your child's developing mind*, Johannesburg: Random House.
- Sorzio, P. (2019). "La ricerca-azione". In L. Mortari & L. Ghirotto (Eds.), *Metodi per la ricerca educativa*, pp. 143 160, Roma: Carocci.
- Striano, M. (2002). La razionalità riflessiva nell'agire educativo, Napoli: Liguori.
- Zanazzi, S. (2023). Promoting Self-Determination in Disability. Reflective practice for future educators. *Proceedings of The 6th International Conference on Innovative Research in Education* (Ireconf), Copenhagen, Denmark, pp.1-16. Available: https://www.dpublication.com/proceeding/6th-ireconf/.
- Zanazzi, S. and Gramigna, A. (2023). *Il filo di Arianna. Metacognizione è relazione*, Ferrara: Volta la carta.
- Wehmeyer, M. L., Abery, B., Mithaug, D. E. and Stancliffe, R. J. (2003). *Theory in self-determination: foundations for educational practice*, Springfield: Thomas.