



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.

FRANCESCO MAGNI is an Associate Professor of General and Social Pedagogy (PAED-01/A) at the Department of Human and Social Sciences, University of Bergamo, Italy. He is a member of the board and Deputy Director of CQIIA (Center for the Quality of Teaching, Didactic Innovation, and Learning). He is also a member of the ATEE - Association for Teacher Education in Europe.

NICOLE BIANQUIN is an Associate Professor of Didactics and Special Education (PAED-02/A) at the Department of Human and Social Sciences, University of the Aosta Valley, Aosta, Italy. She is a member of the ATEE - Association for Teacher Education in Europe.

ATEE Spring Conference 2024

ATEE Spring Conference 2024

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

May 29th – June 1st, 2024
S. Agostino, Bergamo



Edited by Nicole Bianquin and Francesco Magni





UNIVERSITÀ
DEGLI STUDI
DI BERGAMO | Dipartimento
di Scienze Umane
e Sociali



CQIA

Centro per la Qualità dell'Insegnamento,
dell'Innovazione Didattica e dell'Apprendimento
UNIVERSITÀ DEGLI STUDI
DI BERGAMO



BOOK OF PROCEEDINGS

ATEE Spring Conference 2024

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

May 29th – June 1st, 2024

S. Agostino, 2 - Bergamo, Italy

Edited by Nicole Bianquin and Francesco Magni



Università degli studi di Bergamo

2025

BOOK OF PROCEEDINGS ATEE Spring Conference 2024. Teacher education research in Europe: trends, challenges, practices and perspectives / Nicole Bianquin, Francesco Magni (edited by) - Bergamo: Università degli studi di Bergamo, 2025

ISBN: **978-88-97253-27-3**

DOI: [10.62336/unibg.978-88-97253-27-3](https://doi.org/10.62336/unibg.978-88-97253-27-3)

This publication is released under the Creative Commons
[Attribution Non-Commercial No Derivatives license \(CC BY-NC-ND 4.0\)](https://creativecommons.org/licenses/by-nc-nd/4.0/)



© 2025 The Authors

<https://aisberg.unibg.it/handle/10446/309209>

An event organised by:

Dipartimento di Scienze Umane e Sociali, University of Bergamo // www.dsus.unibg.it

CQIIA – Centro per la Qualità dell’Insegnamento, dell’Innovazione didattica e dell’Apprendimento, University of Bergamo // www.cqia.unibg.it

ATEE – Association for Teacher Education in Europe // www.atee.education

In collaboration with:

Siped
Società Italiana di Pedagogia
fondata nel 1989

SIPED
Società Italiana di
Pedagogia

BAUHAUS4EU
European University Alliance

Bahuhus4EU
European University
Alliance



CIRSE
Centro italiano per la
ricerca storico
educativa

SIRD
Società Italiana di Ricerca Didattica

SIRD
Società Italiana di Ricerca
Didattica

SIPSE
SOCIETÀ ITALIANA
PER LO STUDIO DEL
PATRIMONIO
STORICO-EDUCATIVO

SIPSE
Società Italiana per lo
Studio del Patrimonio
Storico-Educativo

**COMENIUS
ASSOCIATION
COMENIUS**

Comenius Association
European Higher Education
Network of Teacher and
Social Education

sipeges
Associazione italiana di pedagogia generale e sociale

SIPeGeS
Società Italiana di
Pedagogia Generale e
Sociale

EFVET
European Forum
of Technical
and Vocational
Education and Training

EfVET
European forum of
Technical and Vocational
Education and Training

SIPeS
Società Italiana
di Pedagogia
speciale

SIPeS
Società Italiana di
Pedagogia Speciale

ETF
Working Together
Learning for All
European Training Foundation

ETF
European Training
Foundation

C.I.R.PED
Centro
Italiano di
Ricerca
Pedagogica

C.I.R.PED
Centro Italiano di
Ricerca Pedagogica

INVALSI

INVALSI
Istituto nazionale per
la valutazione del
sistema educativo di
istruzione e di
formazione

SIREF
Società Italiana di Ricerca Educativa e Formativa

SIREF
Società Italiana di
Ricerca Educativa e
Formativa

**Ufficio
Scolastico
Territoriale
di Bergamo**

**Ufficio Scolastico
Territoriale di Bergamo**

Conference Chair

Nicole Bianquin, associate professor in Special Education, University of the Aosta Valley, ATEE member;

Francesco Magni, associate professor in Education, University of Bergamo, ATEE member.

Scientific committee

Adolfo Scotto Di Luzio, Vice-Rector for Didactics, Guidance and Placement, University of Bergamo, Italy

Marco Lazzari, Head of the Department of Human and Social Sciences, University of Bergamo, Italy (until September 2024).

Anna Maria Falzoni, Director of CQIIA - Centre for Teaching Quality, Teaching Innovation and Learning, University of Bergamo, Italy

Maria Assunção Flores, University of Minho, Portugal

Joanne Banks, Trinity College of Dublin, Ireland

Federica Baroni, University of Bergamo, Italy

Tore Bernt Sorensen, University of Glasgow,

Scotland (UK)

Paolo Bertuletti, University of Bergamo, Italy

Serenella Besio, University of Bergamo, Italy

Antonio Borgogni, University of Bergamo, Italy

T.J. Ó Ceallaigh, University College Cork, Ireland;

ATEE AC member

Monica Crotti, University of Bergamo, Italy

Linda Daniela, University of Latvia, Latvia

Dietmar Frommberger, University of Osnabrück,

Germany

Paola Gandolfi, University of Bergamo, Italy

Mabel Giraldo, University of Bergamo, Italy

Etti Gordon Ginzburg, Oranim College of Education,

Israel

Michiel Heijnen, Marnix Academy, Netherlands; ATEE

AC President

Erika Kopp, Eötvös Loránd University, Hungary;

ATEE AC member

Marta Kowalczyk-Walędziak, University of Białystok,

Poland

Anna Lazzarini, University of Bergamo, Italy

Hagen Lehmann, University of Bergamo, Italy

Nicola Lovecchio, University of Bergamo, Italy

Gale MacLeod, University of Edinburgh, Scotland

(UK)

Fernando Marhuenda Fluixá, Universitat de València, Spain

Alessandra Mazzini, University of Bergamo, Italy

Sara Nijs, Leuven University, Belgium,

Katrin Poom-Valickis, University of Tallinn, Estonia

Andrea Potestio, University of Bergamo, Italy

Evelina Scaglia, University of Bergamo, Italy

Johannes Karl Schmees, Norwegian University of

Science and Technology (NTNU), Norway

Leah Shagrir, Levinsky College of Education, Israel;

ATEE AC member

Olena Shyyann, Lviv State University of Physical

Culture, Ukraine; ATEE AC member

Vasileios Symeonidis, Pädagogische Hochschule

Freiburg, Germany

Ronny Smet, Karel de Grote University of Applied

Science and Arts, Belgium; RDCs Coordinator of

ATEE

Agnieszka Szplit, Jan Kochanowski University of

Kielce, Poland; ATEE AC Vice-President

Elena Theodoropoulou, University of the Aegean,

Greece

Philippe Tremblay, Université de Laval, Québec

Vidmantas Tūtlys, Academy of Education, Vytautas

Magnus University, Lithuania

Wieland Wermke, Stockholm University, Sweden

Mara Westling Allodi, Stockholm University, Sweden

Jenny Wilder, Stockholm University, Sweden

Rano Zakirova Engstrand, Stockholm University,

Sweden

Organizing committee

Virginia Capriotti, University of Bergamo

Sara Cecchetti, University of Bergamo

Federico Chiappetta, University of Bergamo

Emilio Conte, University of Bergamo

Ester Guerini, University of Bergamo

Paolo Lazzaroni, University of Bergamo

Alice Locatelli, University of Bergamo

Isabel Maggiarra, University of Bergamo

Fabio Sacchi, University of Bergamo

Arianna Taravella, University of Bergamo

Table of contents

Introduction

Francesco Magni, Nicole Bianquin, *Back to the Core: Rediscovering the Power of Teacher Education Research* 7

Teacher education and pedagogical perspective in uncertain times: history, theory, policies and practices

Brigitta Bekesi, Eva Ulbrich, Tony Houghton, Jana Trgalova & Zsolt Lavicza, *The Reflected Double Tetrahedron Model: Project-based learning in teacher training* 11

Andrea Dessardo, «*The Italian didactic secret*». *Teachers' education according to Giuseppe Lombardo-Radice's thought* 19

Ylenia Falzone & Alessandra La Marca, *Lifelong Learning for Mongolia: Occupational Health & Safety project (3L4MHOS)* 25

Ylenia Falzone, Benedetta Miro & Elif Gülbay, *Teachers and Artificial Intelligence: Developing Digital Citizenship Skills* 31

Eleonora Florio, Tanu Biswas, Ilaria Castelli & Letizia Caso, *Bleak Pedagogy: A new term unveiled from research on Adultcentrism* 38

Deirdre Harvey & Maria Campbell, *Promoting and supporting learner resilience in the hospital school* 44

Aggelos Kavasakalis & Angeliki-Despoina Varouxli, *Reasons and beliefs of (Greek) teachers for participating in an MSc relevant to their profession* 54

Semih Kaygisiz & Hanife Akar, *Challenges Head to Train Culturally and Linguistically Responsive Teachers* 62

Sabina Leoncini, *Gender Stereotypes between School and Guidance: A Look at European Regulations and Vocational Education in Italy* 69

Silvia Maggiolini & Elena Zanfroni, *Emergency and people with intellectual disabilities. Teachers' training in the LEBEL proposal* 77

Cristina Miralles-Cardona, María C. Cardona-Moltó & José M. Esteve-Faubel, <i>Gender-responsive teaching: What strategies are teacher educators using for gender mainstreaming implementation?</i>	83
Benedetta Miro & Alessandra La Marca, <i>Service Learning in teacher education for soft skills development</i>	93
Georgia Natsiou & Melpomeni Tsitouridou, <i>Reflecting together online and offline: A systematic review on the types of peer reflection activities in teacher education</i>	102
Laura Parigi & Maria Elisabetta Cicognini, <i>Exploring the Transformative Impact of Teacher Professional Development on Student-Centered Assessment Approaches</i>	109
Francesca Pileggi, <i>Non-cognitive competence and critical-creative skills. A critical review of the current perspectives</i>	116
Francis J. Prescott-Pickup, <i>Finding a successful teacher identity: the role of the mentor-mentee relationship</i>	122
Nathanaili Valbona, <i>Analyzing poor academic performance of Albanian pupils in PISA</i>	129
Elena Zanfroni, <i>Problematic behaviours and classroom management: teachers' representations</i>	137

Teaching and learning challenges and professional development

Monica Banzato, <i>Attitudes of Humanities Students and Aspiring Teachers Toward Quantitative Educational Research: An Introductory Study</i>	146
Ane Bergersen, <i>Global awareness and professional teacher competence through student mobility from Norway to Zambia</i>	152
Barbara Bocchi, Elena Bortolitti & Paola Damiani, <i>Informal Support Teacher Networks: training and self-training between Communities of Practice</i>	160
Barbara Bocchi, Elena Bortolitti, Paola Damiani, Giuseppe Filippo Dettori & Barbara Letteri, <i>The use of artificial intelligence (AI) in inclusive learning: an exploratory investigation</i>	167
Virginia Capriotti, <i>The Impact of Teaching and Learning Centers (TLCs) on Initial Teacher Education Programs in Italy</i>	176
Giorgia Coppola, <i>From Burnout toward Pedagogical Teacher Education. A communities perspective</i>	183
Alexandra Efstathiades, Christiane Gesierich, Christian Rudloff & Anna Kapsalis, <i>FOOTT PRINTTS: Advancing Quality Standards in Teacher Training</i>	189

Elena Gabbi, Ilaria ancillotti & Maria Ranieri, <i>Rethinking digital competences for teaching in the Post-Covid Era: A participatory approach</i>	197
Marco Giganti, <i>Emergency Remote Teaching and Teacher Training: The Role of Implicit Beliefs in Lasting Educational Change</i>	205
Hege Knudsmoen & Mette Birgitte Helleve, <i>Develop teachers' professional identity through global internship</i>	212
Charlotte Kohlloffel, <i>Opening the black box of writing instruction in times of change: insights from Italian secondary school teachers</i>	220
Regine Lehberger, <i>A learning-design to promote reflection and digital media skills for professionalisation of teacher students</i>	229
Marica Liotino, Taiwo Isaac Olatunji, Marianne Grace Araneta, & Monica Fedeli, <i>Reflective Practice in MOOCs: Exploring the Role of Tutors and Fostering Teacher Professional Development</i>	236
Cristina Lisimberty & Katia Montalbetti, <i>Guiding students from lower to upper secondary: a challenging and shared task for families and schools</i>	244
Sabrina Natali, <i>Rethinking teacher training in emotional education through sports</i>	256
Sara Nosari & Emanuela Guarcello, <i>The question of non-cognitive skills and the cheetah's coat perspective</i>	262
Alessandro Oro, Ira Vannini & Elisa Guasconi, <i>A formative assessment framework to develop primary school pre-service and in-service teachers' video analysis programs</i>	271
Federica Pelizzari & Simona Ferrari, <i>Exploring Coding and Educational Robotics in Primary Schools. Results and Perspectives from an Action Research Approach to Teaching Innovation</i>	278
Annfrid Rosey & Tove Leming, <i>Internationalization in Teacher Education: How can student practice in Southern Africa contribute to strengthening the professional work as teachers in Northern Norway?</i>	293
Stefano Spennati, <i>Educating on complexity at the time of transition</i>	300
Chiara Urbani, <i>Collaborative and epistemic advances: a study on teacher agency</i>	305
Gerd Wikan, <i>Global Teachers and Practicum in the Global South. A study of Long-Term Impact of International Practicum in Namibia</i>	312
Franco Zengaro & Sally A. Zengaro, <i>Teachers Reflect on Their Identities as Former Students and Future Teachers</i>	318
Sally A. Zengaro & Franco Zengaro, <i>Supporting Active Learning in Online Learning: Creating a Culture of Care</i>	326

Inclusion in teaching and learning processes and school improvement

Luca Angelone & Federica Festa, <i>Cultivating Inclusive Education: A Collaborative Journey of Secondary School Teachers in Promoting Cognitive and Linguistic Accessibility through Picture Books and AAC</i>	333
Luca Ballestra Caffaratti, Cecilia Marchisio, Alessandro Monchietto, Alessandro Zanzo & Marco Secchia, <i>The Use of Artificial Intelligence in Secondary Schools: Experiences in Initial Teacher Training</i>	340
Daniele Bullegas & Martina Monteverde, <i>Theory into practice: exploring teacher perceptions about Early Intervention in the Italian school system</i>	346
Sara Cecchetti & Nicole Bianquin, <i>The work plan (Plan de Travail) as an educational device that addresses everyone's needs. A survey of teachers' and pupils' perspectives</i>	354
Federica Cilia, Jeanne Kruck, Marie-Hélène Plumet & Mélina Dell'armi, <i>Well-Being and Social Participation of Autism Spectrum Disorder Students at University: the impact of Atypie Friendly Inclusion Program</i>	362
Alice Di Leva & Federica Festa, <i>The Student Voice in teacher training, an investigation into the inclusiveness of European practices</i>	370
Ilaria Folci & Anna Monauni, <i>Differentiation in Preschool. Pedagogical Issues and Best Practices</i>	378
Mabel Giraldo & Fabio Sacchi, <i>Planning the transition to adulthood for students with disabilities: knowledge, perceptions, challenges from STRADE teacher training program</i>	384
Jørgen Klein, Ann Sylvi Larsen & Tove Grete Lie, <i>'People are people' - An investigation of long-term impacts of an international practicum</i>	393
Daniela Maccario & Annamaria Garibaldi, <i>Helping to learn. What are good practices of educational intervention? Structure and preliminary results of a participatory research study</i>	400
Cecilia Marchisio & Alessandro Monchietto, <i>Improving Inclusive Education: The Turin Model of Collaboration between Schools, Universities and Communities</i>	405
Francesca Placanica, Rosa Sgambelluri & Alessandra Priore, <i>Life Designing and inclusive prospects in Italian schools</i>	411
Ilaria Ravasi, <i>Preventing early school leaving. Perspectives of intervention research between school and territory</i>	417

Digital innovation and artificial intelligence (AI): schools, teachers and students between real and virtual world

Valentina Berardinetti, Michele Ciletti, Andreana Lavanga & Giusi Antonia Toto, <i>Digital Innovation and Artificial Intelligence in Museum Education: perspectives, debates and psychological implications</i>	424
Roxana-Madalina Cristea, <i>Investigating the Relationships between In-service Teachers' Technology Pedagogy Content Knowledge and Virtual Learning Environment Success</i>	432
Francesca De Vitis & Marcello Tempesta, <i>Touch in small hands. Responding to the challenges of technology in childhood 0-6</i>	439
Silvia Larghi & Edoardo Datteri, <i>Programming errors and the attribution of intentionality to educational robots</i>	445
Juliana Elisa Raffaghelli, Francesca Crudele, Laura Foschi & Graziano Cecchinato, <i>Let me introduce open education... Facilitating Prospective teachers' understanding of open Education through an ai-based tool</i>	453
Alice Roffi, <i>Digital technologies and collaborative activities for science teaching in the upper secondary school: a qualitative study on teacher's perspective</i>	464
Alice Roffi, Gabriele Biagini, Stefano Cuomo & Maria Ranieri, <i>Development of teachers' competences on Learning Design and on supporting student's Self-Regulated Learning in the lower secondary school</i>	472
Marcello Tempesta, <i>Teacher education and motivation culture</i>	481

School & work and the role of teachers in Vocational Education and Training

Maria Concetta Carruba, Mariateresa Cairo & Magdalena Tsoneva, <i>Comparative Analysis of Inclusive Education Practices in Italy and Bulgaria: Reflections from the Erasmus Plus ASuMIE Project</i>	488
Valerio Ferrero, <i>Teacher Education as a Game Changer: Non-Traditional Factors of Inequality and the Role of Teachers for Equity</i>	494
Anna Granata & Valerio Ferrero, <i>Beyond Patriarchy: Teaching Profession, Gender Issues and Teacher Education in Italy</i>	502
Paola Zini & Dalila Raccagni, <i>Teacher training and well-being best practices: the 3H project</i>	508



POSTER SESSION

Antinea Ambretti, Chiara Gamberini & Arianna Fogliata, <i>Integration of the Sincrony method in physical education during school age in the digital era</i>	517
Francesca Finestrone, <i>Music as an inclusive tool for promoting a sustainable Culture</i>	523
Francesca Finestrone, Francesco Pio Savino, Leonardo Palmisano & Giusi Antonia Toto, <i>Nature Connection and Music in Early Education: Insights from the CNS-ch Scale and TEAL Methods</i>	532
Paula Matijašević, Bruno Matijašević, Ana Žnidarec Čučković & Vesna Babić, <i>Kinesiologists' and Coaches' Self-Assessment of Their Pedagogical Competences</i>	538

The contributions published in this book of proceedings have been evaluated through a double-blind peer review process. We would like to thank the members of the Scientific Committee, as well as the many other professors, researchers and experts who agreed to act as reviewers.

Non-cognitive competence and critical-creative skills. A critical review of the current perspectives

Francesca Pileggi, *University of Turin*, francesca.pileggi@unito.it

Abstract

In light of the current debate on the development of critical-creative transversal skills in younger generation and the nebulosity it brings, this work will focus on reconstructing and problematizing the main models within which critical-creative skills are currently systematized. These models – referable to the main three *life skills*, *character skills* and *soft skills* – have been interpreted starting from epistemological frameworks that support them and their training practices, highlighting, together with potentialities, also the main area of criticalities.

Keywords: critical-creative skills; transversal skills; epistemological paradigms; models; critical review.

1. Critical-creative skills: the current debate

The development of transversal skills, including critical-creative ones, is at the centre of a lively and heated debate that asserts their importance and relevance at an international level, particularly in the education field (Chiosso, 2024, 2021; Heckman & Kautz, 2017; Schleicher, 2020). Practicing such skills is urgent and central for the development of intellectual components (strictly "cognitive"), and, especially, of socio-emotional and relational ones (Rimm-Kaufman & Hulleman, 2015). These "non-cognitive" components enable the individual to consciously and generatively face both complex personal challenges and those global challenges characterized by an unprecedented impact on the near future of humanity and the planet. In particular, among the main challenges, the *social*, *ecological*, and *technological* ones stand out (Pileggi, 2024). In light of their scope, they require from human beings a critical, conscious, and responsible management and orientation, which is possible through the promotion and exercise of those transversal or "non-cognitive" skills. It especially refers to young people, who will be called upon to personally manage the changes arising from challenging scenarios with critical and creative tools, along with their risks and potentials. These transversal skills require intentional and early training (Kautz *et al.*, 2014), as they are not innately and instinctively exercised by humans, but, instead, they must be awakened and developed through significant and motivating educational practices, to be planned and carried out in a systematic and coordinated way (Maccarini, 2021).

Studies on current global challenges (Ceruti & Bellusci, 2023) emphasize the importance of such skills, including *problem solving* (WHO, 1994), *resilience* (Luthans, Youssef & Avolio, 2007), *entrepreneurship* (EU, 2018), *conscientiousness* (OECD, 2014), and *collaboration* (P21, 2015), to better manage the associated problems and opportunities. They present a crucial critical-creative component, which in such studies is referred to as the ability to distinguish the problematic aspects and potential opportunities of challenges (*critical component*), and to act in an enterprising and innovative way, finding new paths (*creative component*).

Despite the current theoretical-conceptual reference models frequently refer to the critical-creative component of skills, they present a varied and nebulous scenario, characterized by multiple and differing perspectives.

In order to clarify the current spectrum of the main models of critical-creative transversal skills in the educational debate, this work aims to present a reconstruction based on a critical analysis structured into three main categories: the *epistemological paradigm* that establishes and supports each model, the *types of critical-creative skills* associated with them, and the *training practices* for promoting and practicing such skills in schools. Within this framework, it is possible to categorize transversal skills into three main theoretical-conceptual models: *life skills*, *character skills*, and *soft skills*.

2. The Life skills model

The "life skills" model can be reconstructed from the setting provided by the World Health Organization (WHO) and the studies on the theory of salutogenesis of Antonovsky (1979). Since the 1990s, such studies have recognized the importance for the individual's health of the personal skills and resources that an individual uses to manage challenging situations and experiences in the most effective way.

The internationally widespread approaches aimed at promoting and practicing life skills in new generations are predominantly of a psychological-sociological nature, referring in their main purposes to "Positive Psychology" (Seligman, 2002) and "Positive Youth Development" (Arnold & Gagnon, 2020). Within this framework, developing life skills in the process of training new generations becomes crucial in enabling them to build and determine their own well-being independently through the promotion of correct lifestyles (Moffitt *et al.*, 2011) and practices. These practices have an impact on self-awareness, which concerns one's own paths, first educational and later professional (Sánchez-Hernando *et al.*, 2022), with the aim to fully and positively integrate the individual into society (Hoffman, 2006).

Although the effectiveness of training practices aimed at the exercise of life skills emerges, as demonstrated by the literature and empirical studies in this field (Taylor *et al.*, 2017), there are still areas of problematic issues that are mainly related to the epistemological paradigm, which frames this skills model and its training methods.

It is a paradigm originally produced within the psycho-social and health sciences, and it predominantly values the biological-physiological aspects of the human being and their functional adaptation to the needs of society. Since it promotes the personal psycho-social care concerning the biological sphere of the individual's life in terms of "development" in a deterministic and naturalistic sense (Ndetei *et al.*, 2019), it serves as a background for educational experiences concerning risk and protective factors that, although fundamental for educating individuals in their entirety, remain partial.

3. The Character skills model

Given the broad framework of international and national studies mainly related to the psycho-economic and sociological areas (Maccarini, 2021; Folloni & Vittadini, 2016), "character skills" derive from studies on the human capital theory of Gary Becker (1964), John Whitefield Kendrick (1976) and Theodore William Schultz (1971), and to the studies of the economist and statistician James Heckman (2014, 2017). He defines "character" as the set of global and interconnected aspects that characterize the indivisible and unrepeatable profile of each human being. Character skills are promoted in light of the idea that the school system does not develop only the individual's "cognitive" sphere related to learning, but particularly focuses on the "character", that is to say, the set of flexible traits and states developed through training practices intentionally planned.

The multiple potential benefits of an early and universal promotion of such skills in new generations show positive effects mainly within the educational-professional sphere of the individuals' life, impacting their motivational factor (Fedeli & Munaro, 2022) and their social life. The increase in productivity following the development of such skills in students also has long-term positive effects on the overall coexistence of the country's individuals (Poggi, 2021), highlighting how investing in the human capital of each member of society can effectively improve economic well-being in its entirety. Despite this, it is possible to identify two main areas of problematic issues of the theoretical-conceptual paradigm that represents the basis of this model.

The first problematic area mainly concerns the human capital theory, which, by emphasizing the link between personal choice and the overall amount of the worker's innate and developed skills, focuses on the individual's ability to produce and generate income. There are few but reliable studies (Lanzi, 2007; Walker, 2012) that highlight a possible relation between the concept of human capital and that of *internal capabilities* of the philosopher Martha Nussbaum (2011), emphasizing the potential role of skills in the citizen's life to improve critical, empathetic and deliberative abilities. However, as this theoretical relation is not explicitly shown in current models and practices of character skills, we only have a theory offering a limited picture of the human being. On one hand, the human being seems to have a set of powerful means at his disposal to successfully emerge in the realms of personal life; on the other hand, the typically human ability to give meaning to reality, carving out that space of full freedom to interpret and judge one's own life experience, is not sufficiently valued.

The second area of concern emphasizes the importance of an ethical-value orientation for character skills so that they can preserve and enhance a fully human meaning in the subject itself and in relation with others (Maccarini, 2021). Such a model needs specific attention to the dimensions of ethical-value-based actions that need to be awakened and promoted especially in new generations to develop a conscious and responsible approach towards reality (Yang, Chan & Ma, 2020).

4. The Soft skills model

The "soft skills" model, from a first analysis of the underlying theoretical-conceptual frameworks, is characterized by a set of multiple nebulous and problematic epistemological perspectives. In fact, it is not possible to systematize and link all these perspectives to a paradigm with an easily identifiable matrix and definition (Iannotta & Scarano, 2023). The term "soft skills" is indeed a very broad concept, generally encompassing all the knowledge, abilities, skills, approaches, and professional and personal traits that are "transferable" to different activities. Both in the *epistemological* and *semantic* case, it concerns a breadth of perspectives that results from the corporate and industrial professional training field within which the definition of soft skills was born and developed. This field is characterized by dynamism, challenges, and changes that contribute to shaping the complex work behaviour of individuals in current societies (Biasi, Caggiano & Ciraci, 2019). Therefore, the development of "soft skills", alongside "hard skills" (i.e., the specific technical-scientific competencies), has long been required, as they are equally necessary and relevant in order to understand and successfully adapt to the demands of the work environment.

However, bearing in mind this problematic background, it is still possible to propose the reconstruction of three theoretical-conceptual paradigms that are the basis of the soft skills model: the *behaviourist paradigm*, the *cognitive-constructivist paradigm* and the "*virtue*" *paradigm*.

In its main studies, the first paradigm refers to (Cimatti, 2016; Giancol & Viteritti, 2019) a behaviourist epistemological matrix, mainly attributable to the thoughts of Edward Tolman (1948); Clark Hull (1952); Burrhus Frederic Skinner (1953); Robert White (1959) and Edward Jones (1989). Within this paradigm, soft skills are interpreted as those skills necessary to face the high level of competition in the workplace, which requires individuals to constantly improve their "employability" (Albanese, 2021). Among these skills, in particular, there are two main dimensions: *career management skills* (ELGPN, 2015), which contribute to the construction and update of the individual's professionalism, and one's own *social competences* and social skills that promote teamwork, communication, listening, negotiation, and networking (Cimatti, 2016).

The second paradigm is represented by studies with a cognitivist-constructivist nature (Altinay Aksal, Altinay Gazi & Isman, 2008; Savickas, 2014) that draw particular attention to Lev Semënovič Vygotskij (1974) and Jerome Bruner (1990), recontextualizing them. The main focus of this field of study is that mental process that is not immediately observable and measurable, which underlies the individuals' performance, enabling them to act in various circumstances with a strong conceptual and operational mastery of the knowledge acquired over time (Mangano, 2014). It is the component of thought that helps the process of defining and constructing the individuals' professional identity (Benadusi & Molina, 2018). This construction of the self has a first development in personal reflection and, subsequently, in the elaboration and co-construction of knowledge with others, developing in the individual an exploratory and critical thought about one's own experience and the shared culture.

The third epistemological paradigm belongs to the framework of the Aristotelian virtue ethics theory (*Etica Nicomachea*, I-VI), intersecting with the current perspective of the development in the human being of the value-based decision making (Grządziel, 2014; Pike & Lickona, 2021) that results from the studies of Jean Piaget (1972) and Lawrence Kohlberg (1969). In this paradigm, the exercise of intellectual and moral virtues is the core purpose of training soft skills in new generations (La Marca, 2019; Pellerey, 2017), as they give the individual the chance to question the meaning of reality, providing a personal perspective and making life choices in a responsible and authentic way. Through the developed skills, the individual is able to read and anticipate positive or negative signals coming from the outside and then act intentionally towards their personal growth.

5. Problematic areas transversal to the three critical-creative skills models

Based on the deconstruction of the main models for critical-creative skills, in the current scenario it is possible to highlight five areas of problematic issues that frequently appear in them in a transversal way.

- The first area concerns the concept of the individual that emerges from current perspectives, which place more focus on the productivity element at the expense of the more human dimensions (Baldacci, 2019).
- The second area refers to the concept of skills that is revealed, with adaptability being given more value than the socio-economic demands (Apergis & Apergis, 2020).
- The third area concerns the concept of the critical-creative part of skills, which shows a tendency towards short-term objectives, defined and pursued in a predominantly individualistic way (P21, 2015). The dimension of the critic is actually promoted as productive thinking compared to "theoretical" elaboration, and the creative aspect is understood as the resolution of specific problems and self-organization, flexibility, and adaptability to changing circumstances and new constraints (Cocco, 2018).
- The fourth one refers to the nebulousness of the concept of the paradigm underlying the idea of the individual to be formed and the skills themselves, reporting internal contradictions within the same models at both the interpretative level of current studies and the basis of the underlying perspectives (Tammaro & Iannotta, 2023).
- The fifth area concerns the practices and training processes aimed at the exercise of skills, which still shows problematic issues related to the intervention methods, the planning and structural elements of the activities, and the evaluation system adopted (Jacobs & Wright, 2021).

Current paradigms predominantly focus on the logical-cognitive and rational dimension of the human being at the expense of its sensitive dimension; but, for a comprehensive development of the subject, it is necessary to work on both dimensions. Therefore, the encounter with culture can be the privileged space where the sentimental part of the individual can be performed, promoting a *critical-creative understanding* of reality that is not purely "cognitive". It indeed allows individuals to discern and deeply research into the intimate core of their experience and reality, forming the human person to be in touch with their own feelings and enabling them to bring their uniqueness to transform it in a "new" way (Arendt, 1958).

Bibliography

- Albanese, M. (2021). L'Higher education in trasformazione: tra il potenziamento dell'employability e stakeholder view. *Rivista formazione lavoro persona*, XI, 33, 254–280. <https://doi.org/10.1016/j.techfore.2016.08.019>
- Altınay Aksal, F., Altınay Gazi, Z., & Isman, A. (2008). A Comprehensive Look into the Learners' Transferable Skills Related to Constructivist Approach. *World Applied Sciences Journal*, 4(4), 558–567.
- Apergis, E., & Apergis, N. (2020). Long-term unemployment: A question of skill obsolescence (updating existing skills) or technological shift (acquiring new skills)? *Journal of Economic Studies*, 47(4), 713–727. <https://doi.org/10.1108/JES-12-2018-0424>
- Arendt, A. (1964). *Vita activa. La condizione umana*. Florence-Milan: Bompiani. (Original work published 1958).
- Arnold, M. E. & Gagnon, R. J. (2020). Positive youth development theory in practice: An update on the 4-H Thriving Model. *Journal of Youth Development*, 15(6), 1–23. <https://doi.org/10.5195/jyd.2020.954>
- Baldacci, M. (2019). *La scuola al bivio. Mercato o democrazia?* Milan-Rome: Franco Angeli.
- Benadusi, L., & Molina, S. (2018). *Le competenze. Una mappa per orientarsi*. Bologna: Il Mulino.
- Biasi, V., Caggiano, V., & Ciraci, A. M. (2019). Soft Skills of teachers: towards a new field of research and training in the Italian High school. *Formazione & Insegnamento*, 17(3), 92–103. https://doi.org/10.7346/-fei-XVII-03-19_07
- Ceruti, M., & Bellusci, F. (2023). *Umanizzare la modernità. Un modo nuovo di pensare il futuro*. Milan: Raffaello Cortina Editore.
- Chiosso, G., Poggi, A. M., & Vittadini, G. (Eds.). (2021). *Viaggio nelle character skills. Persone, relazioni, valori*. Bologna: Il Mulino.
- Chiosso, G. (2024). *Scuola "Le soft skills non bastano a educare: serve una direzione di senso"*. *IlSussidiario.net*. <https://www.ilsussidiario.net/news/scuola-le-soft-skills-non-bastano-a-educare-serve-una-direzione-di-senso/2716099/>
- Cimatti, B. (2016). Definition, development, assessment of soft skills and their role for the quality of organizations and enterprise. *International Journal for Quality Research*, 10(1), 97–130.

- Cocco, G. (2018). *Governare l'impresa con il capitale umano*. Milan-Rome: FrancoAngeli.
- Dewey, J. (1963). *Experience and Education*. New York: Collier Books. (Original work published 1938).
- European Lifelong Guidance Policy Network. (ELGPN). (2015). *Designing and Implementing Policies Related to Career Management Skills (CMS)*. Jyväskylä: Kariteam.
- European Union. (2018). *EntreComp: the European Entrepreneurship Competence Framework*. Luxembourg: Publications Office of the European Union.
- Fedeli, D., & Munaro, C. (2022). L'educazione alle competenze emotive nel profilo professionale dell'insegnante: punti di forza e criticità. *Annali online della Didattica e della Formazione Docente*, 14(23), 66–80. <https://doi.org/10.15160/2038-1034/2407>
- Folloni, G., & Vittadini, G. (2016). Capitale umano, character, sviluppo. In G. Vittadini (Ed), *Far crescere la persona. La scuola di fronte al mondo che cambia* (pp. 53–72). Milan: Fondazione Sussidiarietà-Itaca.
- Grządziel, D. (2014). *Educare il carattere*. Rome: Las.
- Heckman, J. J., & Kautz, T. (2017). *Formazione e valutazione del capitale umano: L'importanza dei "character skills" nell'apprendimento scolastico*. Bologna: Il Mulino.
- Hoffman, A. M. (2006). *The Capability Approach and educational policies and strategies: effective life skills education for sustainable development*. Paris: Agence Française du Développement (AFD).
- Iannotta, I. S., & Scaranob, R. (2023). Digital transition: promotion and development of transferable skills within the company. *Form@re - Open Journal per la formazione in rete*, 23(1), 151–160. <https://doi.org/10.36253/form-13636>
- Jacobs, J. M., & Wright, P. M. (2021). Thinking about the transfer of life skills: reflections from youth in a community-based sport programme in an underserved urban setting. *Int. J. Sport Exer. Psychol.*, 19, 380–394. <https://doi.org/10.1080/1612197X.2019.1655776>
- Kautz, T., Heckman, J., Diris, R. Ter Weel, B., & Borghans L., (2014). Fostering and Measuring Skills: Improving Cognitive and Noncognitive Skills to Promote Lifetime Success. *OECD Education Working Papers*, 110. OECD Publishing.
- La Marca, A. (2020). *Soft Skills e saggezza a scuola*. Brescia: Scholé.
- Lanzi, D. (2007). Capabilities, human capital and education. *Journal of Behavioral and Experimental Economics*, 36(3), 424–435. <https://doi.org/10.1016/j.socec.2006.12.005>
- Lickona, T., & Pike, M. A. (2021). *Narnian Virtues: Building Good Character with C.S. Lewis*. Cambridge: Lutterworth Press.
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford: Oxford University Press.
- Maccarini, A. M. (2021). *L'educazione socio-emotiva. Character skills, attori e processi nella scuola primaria*. Bologna: Il Mulino.
- Mangano, S. (2014). *Un confronto tra ricercatori e mondo del lavoro sulle competenze trasversali dei laureati*. Fondazione Agnelli & Università di Genova.
- Marzana, D., Poy, S., Rosina, A., Sironi, E. (2018). Alternanza scuola-lavoro e sviluppo delle soft skills: un'indagine sulle attese dei giovani. *RicercaAzione*, 10(2), 187–207. <https://doi.org/10.32076/RA10212>
- Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., Houts, R., Poulton, R., Roberts, B. W., Ross, S., Sears, M. R., Thomson, W. M., & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences of the United States of America*, 108(7), 2693–2698. <https://doi.org/10.1073/pnas.1010076108>
- Ndeti, D. M., Mutiso, V., Gitonga, I., Agudile, E., Tele, A., Birech, L., Musyimi, C., & McKenzie, K. (2019). World Health Organization life-skills training is efficacious in reducing youth self-report scores in primary school going children in Kenya. *Early intervention in psychiatry*, 13(5), 1146–1154. <https://doi.org/10.1111/eip.12745>
- OECD. (2014). *Fostering and Measuring Skills Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success*.
- Pellerey, M. (2017). *Soft skill e orientamento professionale*. Rome: CNOS-FAP.
- Pileggi, F. (2024). New generations and critical-creative skills training. Working towards a renewed paradigm, *Giornale Italiano di Educazione alla Salute, Sport e Didattica Inclusiva*, 8(2), 1–16.
- Poggi, A. M. (2021). NCS, cittadinanza ed educazione civica. In Chiosso, G., Poggi, A.M., & Vittadini, G. (Eds.), *Viaggio nelle character skills. Persone, relazioni, valori* (pp. 185–203). Bologna: Il Mulino.
- Rimm-Kaufman, S. E., & Hulleman, C. S. (2015). SEL in elementary school settings: Identifying mechanisms that matter. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 151–166). The Guilford Press.
- Sánchez-Hernando, B., Gasch-Gallén, Á., Antón-Solanas, I., Gea-Caballero, V., Juárez-Vela, R., Gállego-Diéguez, J., Carboneres-Tafaner, M., Echániz-Serrano, E., Lasso-Olayo, L., Santolalla-Arnedo, I. (2022). A comparative study of life skills, lifestyle habits and academic performance in health promoting and non-health promoting schools in the Autonomous Community of Aragon, Spain. *PeerJ*, 10(2), 1–19. <https://doi.org/10.7717/peerj.13041>
- Savickas, M. (2014). *Career counseling. Guida teorica e metodologica per il XXI secolo*. Trento: Erickson.
- Schleicher, A. (2020). *Una scuola di prima classe. Come costruire un sistema scolastico per il XXI secolo 2020*. Bologna: Il Mulino.
- Seligman, M. E. P. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Free Press.
- The Partnership for 21st Century Learning. (P21). (2015). *P21 Framework Definitions*.
- Tammaro, R., & Iannotta, I. S. (2023). Formare gli insegnanti alle soft skill: innovare la didattica universitaria per promuovere i saperi trasferibili. *Lifelong Lifewide Learning*, 19(42), 287–295. <https://doi.org/10.19241/lll.v19i42.742>
- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting Positive Youth Development Through School-Based Social and Emotional Learning Interventions: A Meta-Analysis of Follow-Up Effects. *Child development*, 88(4), 1156–1171. <https://doi.org/10.1111/cdev.12864>
- Walker, M. (2012). A capital or capabilities education narrative in a world of staggering inequalities? *International Journal of Educational Development*, 32(3), 384–393. <https://doi.org/10.1016/j.ijedudev.2011.09.003>
- WHO. (1994). *Life skills education for children and adolescents in schools*.
- Yang, C., Chan, M. K., & Ma, T. L. (2020). School-wide social emotional learning (SEL) and bullying victimization: Moderating role of school climate in elementary, middle, and high schools. *Journal of school psychology*, 82, 49–69. <https://doi.org/10.1016/j.jsp.2020.08.002>