



# RIE 26

Research & Innovation  
in Education Congress:  
Emerging Challenges  
**BOOK OF ABSTRACTS**

coordination | coordenação

ANTONINO PEREIRA | PEDRO TADEU | SANDRINA MILHANO |  
TIAGO ALMEIDA | CÁTIA MAGALHÃES | CRISTIANA MADUREIRA  
| SALOMÉ MORAIS | SUSANA AMANTE | SUSANA AMBRÓSIO



Centre for Studies in  
Education and Innovation



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RIE26 Research & Innovation in Education Congress: Emerging Challenges  
BOOK OF ABSTRACTS

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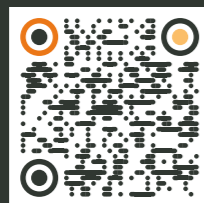
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Aula Magna Professor João Pedro Antas de Barros of the Polytechnic Institute of Viseu, Portugal

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25

10:00 Reception and participant registration  
 10:30 Opening Session ————— 11:00  
 12:30 Lunch

14:30 Parallel Sessions ————— 16:00 Coffee-break

16:30 Round Table [aula magna]  
**Educational Policies, Didactics, and Teacher Education  
 Invisible Curriculum and Experiential Learning: Innovating  
 Beyond the Classroom**  
 - João Vinhas | Vice-President of the Polytechnic Institute of Viseu  
 - Helena Rodrigues | Councillor, Tondela Municipal Council  
 - Ana Gueidão | Headteacher, Viriato Secondary School, Viseu  
 - José António Soares Carvalho | Headteacher, Afonso de Albuquerque School Cluster, Guarda  
 - Sónia Cristina Catarino Baptista | Headteacher, Cardoso Lopes School Cluster, Amadora  
 - Luís Ferreira | Coordinator of the Pan-EUNICE Reading Club 'Assim de Repente'  
 Moderator: Susana Amante

Plenary Lecture [aula magna]  
**Reclaiming the Public Mission of Education: Reflections on the  
 place of education and educational researchers in European  
 policy formation**  
 Joe O'Hara [President-Elect] World Educational Research Association

Round Table [auditorium]  
**Health Education and Quality of Life  
 Mental Health and Well-being: Complementary Perspectives and  
 Evidence in Contemporary Challenges**  
 - Theo Gilbert | University of Hertfordshire, Reino Unido  
 - Diogo Ramos | Executive Board Member, Viseu Dão Lafões Local Health Unit  
 - Patrícia Monteiro | Coordinator of the Integrated Response Centre (CRI) of Viseu  
 - Francisco Fonseca | Councillor for Sport, Tondela Municipal Council  
 - Fábio Botelho | Member of the Aventura Social research team and of ISAMB – Institute of Environmental Health, Faculty of Medicine, University of Lisbon. Member of the Health Behaviour in School-aged Children / World Health Organization (HBSC/WHO) network  
 Moderator: Cátia Magalhães

26

09:30 Parallel Sessions ————— 11:30  
 11:15 Break  
 12:30 Lunch

14:00 Round Table [aula magna]  
**Education, Citizenship, and Inclusion  
 Inclusive Education, Cultural Diversity and Citizenship:  
 Challenges for the Present and the Future**  
 - Andrea Karla Nunes | Tiradentes University, Brazil  
 - Margarida Figueiredo | Coordinator of the Multidisciplinary Family and Student Support Team (EMAAF), José Silvestre Ribeiro School Cluster, Idanha-a-Nova  
 - Marisa Maia | University of Aveiro  
 - Sandra Antunes | Vice-President for Social Responsibility and Innovation, IPV  
 - Vera Serra | Intercultural Mediator, José Silvestre Ribeiro School Cluster, Idanha-a-Nova  
 - Nuno Lourenço | Secretary of the Board of the Parents' and Guardians' Association, Viriato Secondary School, Viseu  
 Moderator: Cristiana Madureira

Plenary Lecture [aula magna]  
**Emerging Challenges in Education: The Role of Relational Intelligence**  
 Rui Marques [Coordinator] Relational Lab

Round Table [auditorium]  
**ICT and Multimedia in Education  
 Fiction, Education and Truth: New Approaches to Combating  
 Disinformation in Higher Education**  
 - Maria Isabel Rodríguez Fidalgo | University of Salamanca  
 - Liliana Vale Costa | University of Aveiro  
 - Isabel Nery | Vice-President and Co-Founder of the Media and Journalism Literacy Association (ALPMJ)  
 - Joana Martins | Vice-President for Strategic Communication, IPV  
 - Cristina Azevedo Gomes | School of Education, Polytechnic Institute of Viseu  
 Moderators: Salomé Morais e Miguel Midões

15:30 Coffee-break ————— 16:00 Round Table [aula magna]  
**Challenges in Educational Research in Portugal**  
 - Helena Araújo e Sá | Research Centre on Didactics and Technology in the Education of Trainers (CIDTFF), University of Aveiro  
 - Luís Sebastião | Research Centre for Education and Psychology, University of Évora (CIEP-UE)  
 - Marisa Correia | Research Centre for Quality of Life (CIEQV)  
 - Sílvia Alves | Centre for Research and Innovation in Education, School of Education of Porto (inED)  
 - Elsa Estrela | Interdisciplinary Centre for Education and Development Studies (CeIED), Lusófona University  
 Moderator: Antonino Pereira

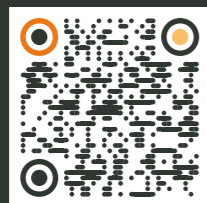
17:30 Closing Session



25-26 junho

Aula Magna Professor João Pedro Antas de Barros  
Instituto Politécnico de Viseu, Portugal

(UTC+1 — Lisbon time)



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10:00 Recepção e acreditação dos participantes  
10:30 Sessão de Abertura  
12:30 Almoço

11:00

14:30 Sessões paralelas 16:00 Coffee-break

16:30 Mesa Redonda [aula magna]  
**Políticas Educativas, Didáticas e Formação  
Currículo Invisível e Aprendizagem Experiencial:  
Inovar para Além da Sala de Aula**

- João Vinhas | Vice-Presidente do IPV
  - Helena Rodrigues | Vereadora da Câmara Municipal de Tondela
  - Ana Gueidão | Diretora da Escola Secundária Viriato, Viseu
  - José António Soares Carvalho | Diretor do Agrupamento de Escolas Afonso de Albuquerque, Guarda
  - Sónia Cristina Catarino Baptista | Diretora do Agrupamento de Escolas Cardoso Lopes, Amadora
  - Luís Ferreira | Coordenador do Pan-EUNICE Reading Club 'Assim de Repente'
- Moderadora: Susana Amante

Conferência Plenária [aula magna]  
**Reclaiming the Public Mission of Education: Reflections on the  
place of education and educational researchers in European  
policy formation**

Joe O'Hara [Presidente Eleito] World Educational Research Association

Mesa Redonda [auditório]  
**Educação para a Saúde e Qualidade de Vida  
Saúde Mental e Bem-Estar: Entre Perspetivas Complementares e  
Evidência nos Desafios Contemporâneos**

- Theo Gilbert | University of Hertfordshire, Reino Unido
  - Diogo Ramos | Vogal executivo da ULS Viseu Dão Lafões
  - Patrícia Monteiro | Coordenadora do CRI de Viseu
  - Francisco Fonseca | Vereador da Câmara Municipal de Tondela
  - Fábio Botelho | Aventura Social; ISAMB-Faculdade de Medicina, Universidade de Lisboa; Rede Health Behaviour in School-Aged Children/Organização Mundial de Saúde-HBSC/OMS
- Moderadora: Cátia Magalhães

26

09:30 Sessões paralelas  
11:15 Intervalo  
12:30 Almoço

11:30

Conferência Plenária [aula magna]  
**Desafios emergentes na Educação: o papel da Inteligência Relacional**  
Rui Marques [Coordenador] Relational Lab

14:00 Mesa Redonda [aula magna]  
**Educação, Cidadania e Inclusão  
Educação Inclusiva, Diversidade Cultural e Cidadania:  
Desafios para o Presente e o Futuro**

- Andrea Karla Nunes | Universidade Tiradentes, Brasil
  - Margarida Figueiredo | Coordenadora da Equipa Multidisciplinar de Apoio à Família e ao Aluno (EMAAF) no Agrupamento de Escolas José Silvestre Ribeiro, Idanha-a-Nova
  - Marisa Maia | Universidade de Aveiro
  - Sandra Antunes | Pró-Presidente do IPV Responsabilidade e Inovação Social
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  - Nuno Lourenço | Secretário da Direção da Associação de Pais/EE da Escola Secundária Viriato, Viseu
- Moderadora: Cristiana Madureira

Mesa Redonda [auditório]  
**TIC e Multimédia na Educação  
Ficção, Educação e Verdade: Novas Abordagens ao Combate à  
Desinformação no Ensino Superior**

- Maria Isabel Rodríguez Fidalgo | Universidade de Salamanca
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  - Cristina Azevedo Gomes | Escola Superior de Educação, Instituto Politécnico de Viseu
- Moderadores: Salomé Morais e Miguel Midões

15:30 Coffee-break 16:00

Mesa Redonda [aula magna]  
**Desafios da Investigação em Educação em Portugal**

- Helena Araújo e Sá | Centro de Investigação em Didática e Tecnologia na Formação de Formadores - Universidade de Aveiro (CIDTFF)
  - Luís Sebastião | Centro de Investigação em Educação e Psicologia da Universidade de Évora (CIEP-UE)
  - Marisa Correia | Centro de Investigação em Qualidade de Vida (CIEQV)
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  - Elsa Estrela | Centro de Estudos Interdisciplinares em Educação e Desenvolvimento - Universidade Lusófona (CeIED)
- Moderador: Antonino Pereira

17:30 Sessão de Encerramento

## Preface

Education is currently undergoing a period of profound transformation. Rapid technological developments, increasing demands for sustainability, the challenges of social and cultural inclusion, as well as the need to strengthen democratic citizenship and promote socially relevant knowledge production, are raising new questions for educational research and innovation. In this context, the Research & Innovation in Education: Emerging Challenges Congress, organised by CI&DEI (Centre for Studies in Education and Innovation), provides a privileged forum for reflection, debate, and scientific exchange on the challenges that shape the present and will influence the future of education.

The programme includes two plenary lectures, thirteen parallel sessions, and five round tables, involving the participation of two keynote speakers, seventy-two authors of oral presentations, twenty-six invited speakers and twenty-one moderators across the various sessions and round tables. This broad participation highlights the thematic diversity, international scope and dynamism of the scientific community engaged in this event.

The contributions gathered in this volume are organised according to the four research lines of CI&DEI: Educational Policies, Didactics and Training; Health Education and Quality of Life; Education, Citizenship and Inclusion; ICT and Multimedia in Education.

The contributions presented by the authors reflect the richness and diversity of contemporary educational research, addressing topics that lie at the heart of the international scientific agenda, including pedagogical innovation and teacher education, digital transformation and the integration of artificial intelligence into teaching and learning processes, the promotion of inclusion, diversity and social justice, education for sustainability and global citizenship, health, well-being and quality of life, as well as the advancement of collaborative research and international cooperation.

An analysis of the contributions presented reveals a shared concern: the need to develop educational responses capable of addressing the growing complexity of contemporary contexts. Beyond the transmission of knowledge, education is now expected to foster critical, creative and ethically responsible citizens who are prepared to participate actively in the construction of more inclusive, sustainable and democratic societies.

The themes discussed throughout this congress are also closely aligned with the principles of the United Nations 2030 Agenda and the Sustainable Development Goals, reaffirming the central role of education in promoting human development, social equity, innovation, and sustainability. In this regard, educational research carries an increased responsibility: to produce rigorous and relevant knowledge that contributes to the improvement of educational and social policies, practices, and institutions.

This book therefore stands as evidence of the dynamism of the scientific community and its capacity to respond to the emerging challenges facing education. We hope that the contributions presented herein will deepen knowledge, stimulate further research and strengthen networks of collaboration among researchers, practitioners and institutions from diverse national and international contexts.

On behalf of the Organising Committee, I wish to express my deepest gratitude to all keynote speakers, authors, reviewers, invited speakers, moderators, participants and partner institutions whose commitment, dedication, and collaboration made the organisation of this congress and the publication of this book possible.

*Antonino Pereira*  
Scientific Coordinator of CI&DEI





## Summary | Sumário

- 32 Reclaiming the Public Mission of Education: Reflections on the place of education and educational researchers in European policy formation
- 33 Emerging Challenges in Education: The Role of Relational Intelligence
- 37 Shaping the Future: Nurturing Inclusion, Artistry, Physical Literacy, and Technological Adaptation in Contemporary Classrooms
- 44 Contact with Art in the 2nd Cycle of Elementary Education: Importance and Potential within the Context of Visual Education  
O Contacto com a Arte no 2.º Ciclo do Ensino Básico: Importância e Potencialidade no âmbito da Educação Visual
- 45 Teachers' Perception of Their Practices for the Inclusion of Children with Specific Health Needs  
Perceção dos Professores sobre as suas Práticas para a Inclusão de Crianças com Necessidades de Saúde Específicas
- 46 Construction of teaching professionalism in Initial Training: Evidence from Supervised Professional Practice Reports  
Construção da profissionalidade docente na Formação Inicial: Evidências dos Relatórios de Prática Profissional Supervisionada
- 47 Arts-Based Pedagogical Innovation in Teacher Education: Insights from the Maio Criativo Project  
Inovação Pedagógica Baseada nas Artes na Formação de Professores: Contributos do Projeto Maio Criativo
- 48 Teacher Identity Construction in Pre-Service Teachers: Between Portuguese Language Didactics and the Observation of Teaching Practices  
A construção da identidade docente em futuros professores: entre a didática do Português e a observação de práticas
- 49 Integrated Narrative Vocabulary Instruction (INVI) for Expressive and Coherent Writing in Elementary Portuguese L1 Education  
Instrução Integrada de Vocabulário Narrativo (INVI) para uma Escrita Expressiva e Coerente no Ensino Básico de Português L1
- 50 Research practices in early years education for environmental literacy on edible plants: An experience in a kindergarden in Guarda  
Práticas de investigação na educação infantil para a alfabetização ambiental sobre plantas comestíveis: Uma experiência num jardim de infância em Guarda
- 51 Repositioning Consent in Mandatory Physical Education: From Participation to "Competition Intensity"  
Reposicionando o Consentimento na Educação Física Obrigatória: Da Participação à "Intensidade Competitiva"
- 52 Repositioning Physical Literacy in Teacher Education: A Review of Research Trends and a Theoretical Integration
- 53 You Don't Have to Do It Alone: The Role of Peer Mentoring in Final Degree Projects in Higher Education













Keynote Speakers

**Conferencistas**

**Joe O'Hara**

[President-Elect] World Educational Research Association  
[Professor of Education] School of Policy and Practice |  
Dublin City University Institute of Education  
[Co-Director] Centre for Evaluation, Quality and Inspection  
[President] European Alliance for Social Sciences and  
Humanities

**Reclaiming the Public Mission of Education: Reflections on the place of education and educational researchers in European policy formation**

As digital technologies advance and democratic norms recede, I find myself constantly returning to a singular question: What is education actually for?

The recent EASSH Position Paper on Society in FP10 (September 2025) offers a compelling answer. It argues for a move away from viewing education solely as a conduit for individual competence, pushing instead for a vision of education as a driver of civic engagement. This is an agenda that closely mirrors my own recent experiences as part of the Horizon Europe SCIREARLY partnership.

In SCIREARLY, we spent years examining the structural challenges of early school leaving and underachievement across Europe. What became clear to me during this project was that these are not isolated technical problems. When a student disengages, it is often because the system has failed to offer them a sense of belonging.

The FP10 proposal suggests a “paradigm shift in goals, infrastructures, and pedagogy.” My time working with our 11-institution consortium confirms this necessity. We found that when we place the learner’s needs at the centre — valuing their cultural and emotional identity — we do not simply improve grades; we cultivate the dispositions required for democratic life: dialogue, mutual respect, participation, and agency.

Alongside this, projects such as SCIREARLY also remind us of the continuing importance of scholarly communities and learned societies within educational research. These organisations act as bridges between research, policy, and practice, creating spaces where ideas can be disseminated, challenged, and refined collectively. They provide platforms for intellectual exchange and critical discussion at a time when public debate is often fragmented and accelerated.

Equally importantly, they function as community support systems and sites of capacity building — nurturing emerging scholars, sustaining international networks of collaboration, and protecting the longer-term, reflective dimensions of educational inquiry. In an increasingly uncertain political and technological landscape, such scholarly infrastructures remain essential to the health of democratic educational systems and to the wider public mission of education itself.

**Rui Marques**

[Coordinator] Relational Lab

**Emerging Challenges in Education: The Role of Relational Intelligence**

Emerging challenges in higher education are often framed through the language of technology: artificial intelligence, digital transformation, automation, employability and future skills. Yet the deeper question is not only how universities and polytechnics should adapt to intelligent machines, but how they can remain deeply human institutions in a world increasingly mediated by algorithms.

Drawing on Isabelle C. Hau’s argument that relational intelligence may become the defining human capacity of our age, this keynote proposes that higher education must move beyond a narrow focus on performance, innovation and individual achievement. Pedagogical innovation cannot be reduced to new tools, active methodologies or digital platforms. At its core, it depends on the quality of the relationships that make learning possible: trust, belonging, presence, care, ethical judgement, conflict navigation, repair and shared meaning.

Relational Intelligence is the conscious capacity to understand, design and care for the quality of the relationships that sustain learning communities. In higher education, it is not a peripheral “soft skill”, but a core infrastructure of academic success, student well-being, inclusion, institutional trust and civic responsibility. Students learn, persist and flourish when they feel known, supported, challenged and connected. Educators and staff also need relationally healthy environments where collaboration, recognition and psychological safety are actively nurtured.

The conference will explore loneliness, mental health, disengagement, academic failure, dropout, digital substitution, fragmentation of campus life and institutional exhaustion through a relational lens. It will argue that the future of higher education depends not only on AI literacy and pedagogical innovation, but also on RQ literacy: the ability to build relational infrastructures where human connection becomes the default, not the exception.

Rather than opposing technology, this perspective asks how AI and pedagogical innovation can augment human presence instead of replacing it. The central claim is simple: the higher education institutions of the future will not be those with the smartest tools or the most innovative methods, but those with the strongest relationships.



Educational  
Policies,  
Didactics, and  
Teacher Education

**Políticas  
Educativas,  
Didáticas e  
Formação**

## Shaping the Future: Nurturing Inclusion, Artistry, Physical Literacy, and Technological Adaptation in Contemporary Classrooms

The contemporary educational landscape faces a complex array of modern dilemmas that demand proactive, collaborative, and forward-looking responses. This section brings together a rich collection of academic contributions that explore innovative methodologies and provide a valid framework for addressing emerging educational needs on a global scale.

The abstracts below focus on reimagining instructional strategies within specialised domains such as physical education and sensory learning. Scholars challenge traditional pedagogical paradigms by examining how structured classroom environments can reposition bodily movement, physical literacy, and sports training within the learning process. By evaluating cognitive loads in competitive activities and questioning how compulsory participation shapes student experiences, these studies advocate for inclusive, highly adaptable approaches to teaching. Concurrently, the value of creative expression is championed through exploring the visual and musical arts. Research suggests that extending learning beyond the traditional school setting through museum-based experiences and community cultural initiatives can significantly enhance aesthetic awareness, student motivation, and artistic imagination.

Furthermore, these abstracts address the pressing responsibility of fostering inclusive environments for children with diverse medical or developmental needs. While educators express a strong commitment to creating equitable spaces where all learners feel a sense of belonging, they also identify significant systemic barriers, including shortages of specialised classroom resources and overcrowded classrooms. These challenges underscore the urgent need for robust structures and targeted professional development to sustain meaningful inclusion.

Finally, this section also engages with the digital and socio-environmental transformations shaping our contemporary society. The rapid integration of generative artificial intelligence into mathematics education, the use of interactive digital storytelling tools, and the creation of pedagogical podcast series offer promising opportunities for autonomous learning, problem-solving, and immediate feedback. However, these digital advancements also bring critical responsibilities regarding ethical governance, digital safety, and technological literacy. This technological shift is complemented by a growing emphasis on environmental citizenship. Through field-based experiences in regional kindergartens and critical analyses of educational silences surrounding local ecological disasters, the contributions in this section emphasise the importance of grounding learning in specific territorial and community contexts.

Ultimately, all these abstracts offer a compelling roadmap for the future of education. By investigating how Higher Education Institutions translate science communication priorities into practice and exploring co-designed strategies to foster a positive research culture, these studies demonstrate how today's academic challenges can be transformed into sustainable pathways for meaningful, collaborative, and inclusive learning.

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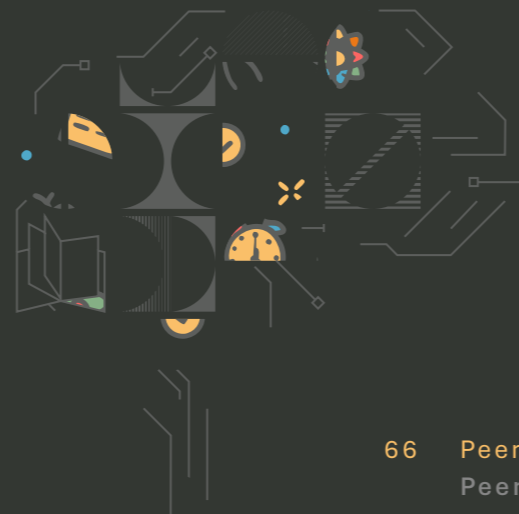




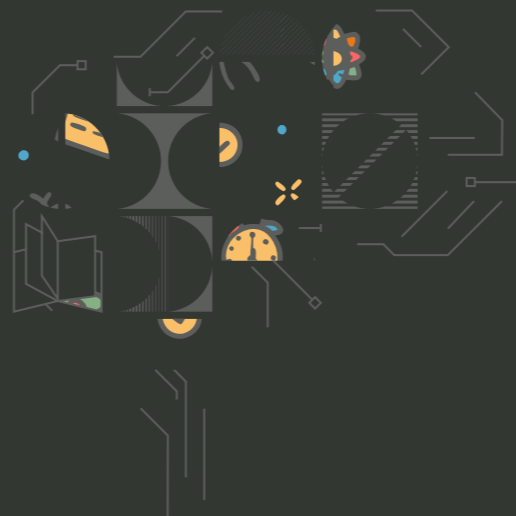
## Summary | Sumário

- 37 **Shaping the Future: Nurturing Inclusion, Artistry, Physical Literacy, and Technological Adaptation in Contemporary Classrooms**  
Contacto com a Arte no 2.º Ciclo do Ensino Básico: Importância e Potencialidade no âmbito da Educação Visual
- 44 **Contact with Art in the 2nd Cycle of Elementary Education: Importance and Potential within the Context of Visual Education**  
O Contacto com a Arte no 2.º Ciclo do Ensino Básico: Importância e Potencialidade no âmbito da Educação Visual
- 45 **Teachers' Perception of Their Practices for the Inclusion of Children with Specific Health Needs**  
Perceção dos Professores sobre as suas Práticas para a Inclusão de Crianças com Necessidades de Saúde Específicas
- 46 **Construction of teaching professionalism in Initial Training: Evidence from Supervised Professional Practice Reports**  
Construção da profissionalidade docente na Formação Inicial: Evidências dos Relatórios de Prática Profissional Supervisionada
- 47 **Arts-Based Pedagogical Innovation in Teacher Education: Insights from the Maio Criativo Project**  
Inovação Pedagógica Baseada nas Artes na Formação de Professores: Contributos do Projeto Maio Criativo
- 48 **Teacher Identity Construction in Pre-Service Teachers: Between Portuguese Language Didactics and the Observation of Teaching Practices**  
A construção da identidade docente em futuros professores: entre a didática do Português e a observação de práticas
- 49 **Integrated Narrative Vocabulary Instruction (INVI) for Expressive and Coherent Writing in Elementary Portuguese L1 Education**  
Instrução Integrada de Vocabulário Narrativo (INVI) para uma Escrita Expressiva e Coerente no Ensino Básico de Português L1
- 50 **Research practices in early years education for environmental literacy on edible plants: An experience in a kindergarden in Guarda**  
Práticas de investigação na educação infantil para a alfabetização ambiental sobre plantas comestíveis: Uma experiência num jardim de infância em Guarda
- 51 **Repositioning Consent in Mandatory Physical Education: From Participation to "Competition Intensity"**  
Reposicionando o Consentimento na Educação Física Obrigatória: Da Participação à "Intensidade Competitiva"
- 52 **Repositioning Physical Literacy in Teacher Education: A Review of Research Trends and a Theoretical Integration**
- 53 **You Don't Have to Do It Alone: The Role of Peer Mentoring in Final Degree Projects in Higher Education**

- 54 **Artificial Intelligence and Mathematics Education: Reframing Mathematical Reasoning, Proof, Learning, and Ethical Governance in the Generative AI Era**  
Inteligência Artificial e Educação Matemática: Reconfigurar o Raciocínio Matemático, a Prova, a Aprendizagem e a Governança Ética na Era da IA Generativa
- 55 **Who Designs the Learning Environment? Evaluating Cognitive Load and Subjective Experience in Youth Basketball**  
Quem desenha o ambiente de aprendizagem? Avaliação da carga cognitiva e da experiência subjetiva no basquetebol juvenil
- 56 **From Data to Action: Quantitative Research for Whole-School Empowerment in Safe and Responsible Internet Use**
- 57 **Children’s Digital Stories and Collaborative Pedagogical Supervision: Contributions to Teacher Professional Development in Primary Education**  
Histórias digitais infantis e supervisão pedagógica colaborativa: contribuições para o desenvolvimento profissional
- 58 **Beyond Pedagogical Silence: PEBRID’s Trajectory and perspectives on pedagogical practice in the Rio Doce Basin**  
Para além do Silêncio Pedagógico: Trajetória do PEBRID e as perspectivas do fazer pedagógico na Bacia do Rio Doce
- 59 **Science Communication in European University Alliances: Convergences and Gaps of Practice under the European Education Area and European Research Area Framework**
- 60 **Repositioning Physical Literacy in Teacher Education: A Review of Research Trends and a Theoretical Integration**
- 61 **Coaching as Environmental Design: An Ecological Perspective on Training Practice**  
Coaching como Desenho do Ambiente: Uma Perspectiva Ecológica sobre a Prática de Treino
- 62 **Environmental Education and Teaching about Mining in Ipatinga, Minas Gerais, Brazil: Contributions from the Rio Doce School Program**  
Educação Ambiental e Ensino sobre Mineração em Ipatinga, Minas Gerais, Brasil: Contribuições do Programa Escola Rio Doce
- 63 **Exploring with Digital Tools: Building Mathematical Concepts in Elementary School**  
Explorar com ferramentas digitais: Construção de conceitos matemáticos no 1.º ciclo
- 64 **Investigation of Pre-Service Preschool Teachers’ Higher-Order Thinking Skills in Terms of Certain Variables**  
Investigação das Habilidades de Pensamento de Ordem Superior de Futuros Educadores de Infância em Termos de Certas Variáveis
- 65 **Supervision in Dialogue: Perspectives of Practising Teachers and Institutional Supervisors**  
Supervisão em Diálogo: Perspetivas de Professores Cooperantes e Supervisores Institucionais



- 66 **Peer Instruction in the context of an Art Education project**  
Peer Instruction no contexto de um projeto de Educação Artística
- 67 **Fostering a positive Research Culture in CI&DEI: Insights from the INSIDE Project**
- 68 **Autobiographical narratives in adult education: investigative uses and formative potential**  
Narrativas autobiográficas na educação de adultos: usos investigativos e potencial formativo
- 69 **Transforming Teacher Identity through Rights-Based Education: An Action Research Study with Preschool Teacher Candidates**
- 70 **Conversation circles and teacher education: a territorially grounded methodology in communities of the Middle Rio Doce (MG)**
- 71 **Rio Doce School Program (PEBRID) in Ipatinga-MG: Reparation Diagnosis and Confronting Pedagogical Silence Post-Fundão Disaster**
- 72 **Beyond Pedagogical Technique: Conversation Circles as a Device for Narrative Production in Post-Disaster School Contexts**  
Para Além da Técnica Pedagógica: Rodas de Conversa como Dispositivo de Produção de Narrativas em Contextos Escolares Pós-Desastre
- 73 **Local management of the Music Education curriculum – From policies to practices in the Autonomous Region of Madeira**  
Gestão local do currículo de Educação Musical – Das políticas às práticas, na Região Autónoma da Madeira
- 74 **Pedagogical Innovation in IPL: Insights from a Podcast-Based Study**
- 75 **Educating for peace through children’s literature**  
Educar para a paz com a literatura para a infância
- 76 **DUATEC-Labs in Higher Education: a pilot study**  
Os laboratórios DUATEC no ensino superior: um estudo-piloto
- 77 **Reflecting on the establishment of Physical Education Department in Japanese High Schools from the 1960s to the 1970s**
- 78 **Exploratory study of how two learning models influence shooting skill acquisition in young football players**  
Estudo exploratório sobre como dois modelos de aprendizagem influenciam a aquisição da habilidade de remate em jovens jogadores de futebol
- 79 **Developing Leadership Competences for High-Performance Management Education: Contemporary Perspectives and Practices**



## authors | autores

- Adriana Cardoso* 74  
*Alexandra Lopes* 45  
*Aline Andrade Baia Câmara* 58  
*Ana Caseiro* 74  
*Ana Daniel* 67  
*Ana França Kot-Kotecki* 73  
*Ana Gama* 65  
*Ana Paula Cardoso* 44, 45, 67  
*Ana Rita Brito Chedas de Sampaio* 49, 63  
*Angela Deyva Gomes da Silva* 68, 70, 72  
*Antonino Pereira* 67  
*António Fragoso* 68  
*Artur Marques* 78  
*Beatriz Lourosa* 50  
*Blanca Rubio-Palomino* 53, 56  
*Carina Ferreira* 48  
*Carla Lacerda* 45  
*Carla Rocha* 74  
*Carmen Pârvu* 79  
*Carolina Marques* 61  
*Catarina Monteiro* 57  
*Clarisse Nunes* 46  
*Daniela Bobocea* 79  
*Daniela Villa-Henao* 53, 56  
*Dulce Melão* 75  
*Emma Todd* 67  
*Erika Izquierdo-García* 76  
*Gabriel Felipe Martins Rocha* 58, 71  
*Geilsa Costa Santos* 50  
*Gül Dalgar* 69  
*Gül DALGAR* 64  
*Helena Silva* 44  
*Inmaculada García-Martínez* 76  
*Jenny Sousa* 47, 66  
*João Sampaio* 78  
*Jorge Arede* 78  
*Jorge Felipe de Lima Arede* 55  
*Jorge Luiz dos Santos* 71  
*Juliana Rodrigues Silva Santos* 72  
*Kentaro TAI* 51  
*Koji Takahashi* 52, 60  
*Lara Checa-Domene* 76  
*Leandro Silva de Paula* 58, 62, 71  
*Lúcia Magueta* 47, 66  
*Marcus Vinicius Nascimento de Souza* 71, 72  
*Maria Figueiredo* 59  
*Maria Helena Araújo e Sá* 65, 68  
*Maria Lobo* 59  
*Maria Teresa Brito Chedas de Sampaio* 49, 63  
*Merve ÖZTÜRER* 64  
*Natália Fraga de Oliveira* 70  
*Natalina Cristóvão* 73  
*Nazlı Sila Öner* 69  
*Olga Jiménez-Díaz* 53, 56  
*Paula Rodrigues* 44  
*Pedro Tadeu* 54, 67  
*Raquel Brito* 59  
*Ricardo André Birrento Aguiar* 55, 57  
*Rita Friães* 46, 74  
*Rodica Țocu* 79  
*Rosa Branca Tracana* 50  
*Saburo NISHIMURA* 61  
*Sandrina Milhano* 47, 49, 66, 67  
*Shuhei KITAGAWA* 61  
*Simona Marin* 79  
*Susana Amante* 37, 83, 101, 145  
*Susana Ambrósio* 59, 67, 68  
*Tadeu Celestino* 67  
*Tiago Almeida* 67  
*Tiago Tempera* 74  
*Valdemar Sousa* 73  
*Yoshinori KINOMURA* 61  
*Yusuke Hidaka* 77

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### Contact with Art in the 2nd Cycle of Elementary Education: Importance and Potential within the Context of Visual Education

The teaching of visual arts plays a fundamental role in enriching students' education, promoting not only aesthetic sensitivity but also cultural and artistic heritage. In particular, contact with art through museum visits can be pedagogically valuable for student development, providing rich and stimulating cultural and cognitive experiences outside the formal classroom context. In this context, we conducted a study to understand the extent to which contact with art, through a visit to the Grão Vasco National Museum in the Viseu region, can awaken students' interest and curiosity in art and foster their imagination. A qualitative investigation into teaching practices was carried out using various data collection techniques, including direct observation using a grid, participant observation with field notes, and a questionnaire. Twenty-four students from a 6th-grade class in a school cluster in the city of Viseu (Portugal) participated. The results highlighted the importance of practical activities, such as museum visits, in promoting interest, observation, technical mastery, and the integration of historical and cultural references in students' artistic creation. In this sense, they emphasize the potential of practical activities to enhance student participation and engagement in the teaching-learning process, as well as their significant contribution to their holistic development.

#### Keywords

- visual education
- museums
- art and education
- creative processes
- study visits

### O Contacto com a Arte no 2.º Ciclo do Ensino Básico: Importância e Potencialidade no âmbito da Educação Visual

O ensino das artes visuais desempenha um papel fundamental no enriquecimento educativo dos alunos, promovendo não apenas a sensibilidade estética, mas também o património cultural e artístico. Em particular, o contacto com a arte através da visita a museus pode ser uma mais-valia pedagógica para o desenvolvimento dos alunos, ao proporcionar vivências culturais e experiências cognitivas ricas e estimulantes fora do contexto formal da sala de aula. Neste âmbito, realizámos um estudo que procurou compreender em que medida o contacto com a arte, através da visita ao Museu Nacional Grão Vasco de Viseu, pode contribuir para despertar o interesse e a curiosidade dos alunos de Educação Visual pela arte e para promover a sua imaginação. Foi desenvolvida uma investigação sobre as práticas, de natureza qualitativa, tendo utilizado como técnicas de recolha de dados a observação direta por meio de uma grelha, a observação participante com o registo de notas de campo e um questionário. Participaram 24 alunos de uma turma do 6.º ano de escolaridade de um agrupamento de escolas da cidade de Viseu (Portugal). Os resultados evidenciaram a importância das atividades práticas, como a visita a museus, na promoção do interesse, da observação, do domínio técnico e da integração de referentes histórico-culturais na criação artística dos alunos. Neste sentido, sublinham o potencial das atividades práticas na participação e envolvimento dos alunos no processo de ensino-aprendizagem, bem como o relevante contributo para a sua formação integral.

#### Palavras-chave

- educação visual
- museus
- arte e educação
- processos criativos
- visitas de estudo

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### Teachers' Perception of Their Practices for the Inclusion of Children with Specific Health Needs

The inclusion of students with Specific Health Needs (SHN) in regular education is one of the challenges that schools face as educational institutions, teachers as agents of change and strategic actors in the entire process, and other professionals working in the education field. With this research work, we tried to understand if primary school teachers (1st Cycle of Basic Education) (1.º CEB) have the perception of their practices in line with the inclusive school philosophy. To this end, a descriptive investigation was carried out, using a questionnaire survey. The instrument developed for this purpose was applied to 56 primary school class teachers of three school clusters in the municipality of Viseu, located in the central region of Portugal. The data obtained allow us to conclude that, in general, teachers are aware of their inclusive practices and responses to diversity are being developed using pedagogical differentiation. However, the teachers surveyed highlight the lack of resources and the high number of students per class as the main difficulties they encounter in promoting inclusion, especially in a context of increasing student diversity in Portuguese schools. Nevertheless, the teachers believe in the inclusive school process, the majority stating that "the school belongs to everyone and for everyone".

#### Keywords

- special educational needs
- inclusion
- educational practices
- teachers' perceptions
- teacher training

### Perceção dos Professores sobre as suas Práticas para a Inclusão de Crianças com Necessidades de Saúde Específicas

A inclusão de alunos com Necessidades de Saúde Específicas (NSE) no ensino regular é um dos desafios que se colocam às escolas enquanto instituições educativas, aos professores enquanto agentes de mudança e atores estratégicos de todo o processo e aos demais profissionais que atuam na área da educação. Com esta investigação, procurámos compreender se os professores do 1.º Ciclo do Ensino Básico (1.º CEB) têm a perceção das suas práticas consonantes com a filosofia da escola inclusiva. Para tal, foi realizada uma investigação de carácter descritivo, com recurso ao inquérito por questionário. O instrumento elaborado para o efeito foi aplicado a 56 professores titulares de turma do 1.º CEB de três agrupamentos de escolas do distrito de Viseu (Portugal). Os dados obtidos permitem concluir que, em geral, os professores têm a perceção de que as suas práticas são inclusivas e de que as respostas à diversidade estão a ser desenvolvidas com recurso à diferenciação pedagógica. Contudo, os docentes inquiridos destacaram a falta de recursos e o número elevado de alunos por turma, como as principais dificuldades que encontram para promover a inclusão, principalmente no contexto atual de crescente diversidade de alunos nas escolas portuguesas. Não obstante, os professores acreditam no processo da escola inclusiva, afirmando, na maioria, que "a escola é de todos e para todos".

#### Palavras-chave

- necessidades de saúde específicas
- inclusão
- práticas educativas
- perceção dos professores
- formação de professores

**Construction of teaching professionalism in  
Initial Training: Evidence from Supervised Professional Practice Reports**

Initial teacher training is based on valuing practice as a space for learning, researching action, and professional development. This research is part of a broader study that aims to map the emerging themes in the research processes of students enrolled in the Master’s Degree in Early Childhood Education (MEPE) at ESELx, the research methodologies used, and the concepts they formulate about professional identity, based on the analysis of internship reports.

This abstract provides an overview of this work, focusing on the analysis of narratives about the construction of professional identity produced by MEPE students. The exploratory study used online documentary research, analyzing 169 Supervised Professional Practice reports produced between 2020 and 2023. The analysis focused on the students’ reflection about the construction of professional identity and was based on a corpus of 32 reports, which were subjected to inductive content analysis supported by AI tools.

The data reveal a notable convergence around the construction of professional identity anchored in initial training and supervised practices in nurseries and kindergartens. They also highlight the relevance of the theory-practice articulation and the understanding of identity as a continuous and dynamic process. The developing professional profile

is structured around reflection, educational relationships, and pedagogical intentionality geared towards children’s participation and well-being. The results thus reinforce the centrality of supervised practice and reflection in teacher training, contributing to a rethinking of curricula and the strengthening of professional identities under construction.

**Keywords**

- construction of teaching professionalism
- master’s degree in pre-school education
- initial teacher training
- supervised professional practice

**Construção da profissionalidade docente na Formação Inicial: Evidências dos  
Relatórios de Prática Profissional Supervisionada**

A formação inicial de professores assenta na valorização da prática como espaço de aprendizagem, de investigação sobre a ação e de construção da identidade profissional. O presente estudo integra uma investigação mais ampla que visa cartografar as temáticas emergentes nos processos investigativos dos estudantes do Mestrado em Educação Pré-Escolar (MEPE) da ESELx, as metodologias de investigação mobilizadas e as conceções que estes formulam sobre a construção da sua profissionalidade, a partir da análise de relatórios de estágio. Este resumo constitui um recorte desse trabalho, centrando-se na análise das narrativas de construção da profissionalidade docente produzidas pelos estudantes do MEPE. O estudo, de natureza exploratória, recorreu à pesquisa documental online, analisando 169 relatórios da Prática Profissional Supervisionada elaborados entre 2020 e 2023. A análise específica da profissionalidade baseou-se num corpus de 32 relatórios, submetidos a análise de conteúdo indutiva apoiada por ferramentas de IA. Os resultados revelam uma notória convergência em torno da construção da identidade profissional ancorada na formação inicial e nas práticas supervisionadas em creche e jardim de infância. Evidenciam ainda a relevância da articulação teoria-prática e a compreensão da identidade como processo contínuo e dinâmico.

O perfil de profissionalidade em desenvolvimento estrutura-se na reflexão, na relação educativa e na intencionalidade pedagógica orientada para a participação e o bem-estar das crianças. Os resultados reforçam a centralidade da prática supervisionada e da reflexão na formação docente, contribuindo para o repensar dos currículos e para o fortalecimento das identidades profissionais em construção.

**Palavras-chave**

- construção da profissionalidade docente
- mestrado em educação pré-escolar
- formação inicial de professores
- prática profissional supervisionada

**Arts-Based Pedagogical Innovation in Teacher Education: Insights from the Maio  
Criativo Project**

Pedagogical innovation in arts and music education has increasingly been associated with participatory and creative learning processes that transform key dimensions of teaching and learning, including learning purposes, learning contexts, teacher–student relationships and the active role of learners (Olvera-Fernández et al., 2023). Within this perspective, arts-based pedagogies emphasise collaborative creation, multimodal expression and reflective learning as drivers of meaningful educational experiences (Eisner, 2002; Burnard, 2019; Flannery et al., 2023). In teacher education, such approaches contribute to developing creative competences, critical reflection and participatory pedagogical practices. The aim is to analyse Maio Criativo (Milhano et al., 2022, 2026) as a case of arts-based pedagogical innovation in teacher education, examining the project’s contribution to educational policies, didactics, and teacher professional learning. The study adopts a qualitative documentary case study design (Bowen, 2009; Merriam & Tisdell, 2016) based on analysis of testimonies, activity records, participation data, and images of more than 300 artistic and educational activities developed across seven editions (2018-2025), and involving over 22,000 participants. The findings suggest that the project promotes innovative pedagogical practices through interdisciplinary artistic creation, community engagement and participatory learning environments that foster creativity, collaboration and aesthetic awareness among future teachers. The study highlights the potential of arts-based initiatives to support pedagogical innovation in teacher education and inform the design of creative and socially responsive learning environments in HEI.

**Keywords**

- arts-based pedagogy
- community engagement
- pedagogical innovation
- teacher education

**Inovação Pedagógica Baseada nas Artes na Formação de Professores: Contributos do  
Projeto Maio Criativo**

A inovação pedagógica na educação artística tem sido cada vez mais associada a processos de aprendizagem participativos e criativos que transformam dimensões-chave do ensino e da aprendizagem, incluindo as finalidades da aprendizagem, contextos educativos, relações professor–estudante e o papel ativo dos aprendentes (Olvera-Fernández et al., 2023). As pedagogias baseadas nas artes valorizam a criação colaborativa, a expressão multimodal e a aprendizagem reflexiva como motores de experiências educativas significativas (Eisner, 2002; Burnard, 2019; Flannery et al., 2023). Na formação de professores, contribuem para o desenvolvimento de competências criativas, pensamento crítico e práticas pedagógicas participativas. Analisa-se o projeto Maio Criativo (Milhano et al., 2022, 2026) como um caso de inovação pedagógica baseada nas artes no contexto da formação de professores e o seu contributo para as políticas educativas, a didática e a aprendizagem profissional docente. Adota-se um desenho de estudo de caso documental qualitativo (Bowen, 2009; Merriam & Tisdell, 2016), baseado na análise de testemunhos, registos de atividades, dados de participação e imagens de 300 atividades artísticas e educativas desenvolvidas ao longo de sete edições (2018–2025), com mais de 22 000 participantes. Os resultados sugerem que se promovem

**Palavras-chave**

- envolvimento comunitário
- inovação pedagógica
- formação de professores
- pedagogia baseada nas artes

práticas pedagógicas inovadoras através da criação artística interdisciplinar, envolvimento comunitário e ambientes de aprendizagem participativos que fomentam criatividade, colaboração e consciência estética. Evidencia-se o potencial das iniciativas baseadas nas artes na inovação pedagógica na formação de professores e no desenho de ambientes de aprendizagem criativos e socialmente responsivos no ES.

### Teacher Identity Construction in Pre-Service Teachers: Between Portuguese Language Didactics and the Observation of Teaching Practices

Initial teacher education constitutes a privileged space for the construction of teacher identity, particularly in the articulation between theoretical-didactic knowledge and engagement with pedagogical practices. Within the context of the Portuguese Language Didactics course, integrated into the third year of the Bachelor's degree in Basic Education, this study analyses how the observation of teaching practices contributes to the (re)configuration of future teachers' conceptions and professional identity.

Adopting a qualitative and interpretative approach, the study is organised into three moments: before, during, and after the observation of practices in school contexts. In the first stage, students' initial representations regarding the teaching of Portuguese, the role of the teacher, and the relevance of didactic knowledge are collected. During the observation period, students are confronted with practices, fostering critical reflection. Finally, the study analyses transformations in their conceptions, as well as how they articulate theoretical knowledge with observed practices.

Data collection includes open-ended questionnaires, reflective records, and written narratives, enabling the capture of participants' meaning-making processes. The analysis focuses on continuities, disruptions, and reconfigurations of initial conceptions, as well as on how didactic knowledge is appropriated.

**Keywords** → teacher identity  
→ observation of teaching practices  
→ initial teacher education

The results highlight the complexity of teacher identity construction, marked by the tension between the prescribed and the enacted, and emphasise the role of practice observation as a relevant formative device in initial teacher education.

### A construção da identidade docente em futuros professores: entre a didática do Português e a observação de práticas

A formação inicial de professores constitui um espaço privilegiado para a construção da identidade docente, particularmente na articulação entre o conhecimento teórico-didático e o contacto com práticas pedagógicas reais. No âmbito da unidade curricular de Didática da Língua Portuguesa, integrada no 3.º ano da licenciatura em Educação Básica, este estudo analisa de que modo a observação de práticas docentes contribui para a (re)configuração das concepções e da identidade profissional de futuros professores.

Adotando uma abordagem qualitativa e de natureza interpretativa, o estudo organiza-se em três momentos distintos: antes, durante e após a observação de práticas em contexto escolar. Num primeiro momento, são recolhidas as representações iniciais dos estudantes relativamente ao ensino da Língua Portuguesa, ao papel do professor e à relevância do conhecimento didático. Durante o período de observação, os estudantes são confrontados com práticas reais, potenciando processos de reflexão crítica. Por fim, faz-se a análise das possíveis transformações nas suas concepções e na forma como articulam o conhecimento teórico com as práticas observadas.

A recolha de dados inclui questionários de resposta aberta, registos reflexivos e narrativas escritas, permitindo captar os processos de construção de sentido desenvolvidos pelos participantes. A análise incide nas continuidades, ruturas e reconfigurações das concepções iniciais, bem como nas formas de apropriação do conhecimento didático.

Os resultados evidenciam a complexidade do processo de construção da identidade docente, marcado pela tensão entre o prescrito e o praticado, e sublinham o papel da observação de práticas como dispositivo formativo relevante na formação inicial.

**Palavras-chave**

→ identidade docente  
→ observação de práticas  
→ formação inicial de professores

### Integrated Narrative Vocabulary Instruction (INVI) for Expressive and Coherent Writing in Elementary Portuguese L1 Education

This study examines the impact of integrated vocabulary instruction on narrative writing development in Portuguese (L1) in early primary education. Grounded in research on the role of lexical knowledge in writing, it asks: to what extent does explicit, systematic vocabulary instruction improve lexical diversity and narrative quality in second-grade students' writing? Adopting a sociocritical perspective and a quasi-experimental mixed-methods design, the study was conducted in a school cluster in socially disadvantaged areas of Cascais, Portugal, with 2.º grade classes (2 experimental, 2 control). To ensure comparability, students with special educational needs, Portuguese as a non-native language, school mobility, or limited literacy autonomy were excluded. Differences in sample size reflect task demands: all eligible students completed vocabulary tests, but only those with sufficient literacy skills completed writing tasks. The intervention followed the Integrated Narrative Vocabulary Instruction (INVI) model, integrating explicit vocabulary teaching with narrative writing. It was implemented daily (30–60 minutes) from January- June 2025, through modules on adjectives, nouns, and verbs, fostering semantic relations, lexical variation, and metacognitive planning.

Pre and post-tests assessed vocabulary knowledge and narrative writing. Lexical diversity was measured using TTR and MTLT and narrative quality through macro- and microstructural criteria. Results show statistically significant gains in the experimental group in vocabulary, lexical diversity, and narrative quality, highlighting the effectiveness of integrated lexical instruction and supporting INVI as a replicable model for early writing development.

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**Keywords**  
→ vocabulary instruction  
→ narrative writing  
→ early primary education  
→ Portuguese L1  
→ lexical diversity

### Instrução Integrada de Vocabulário Narrativo (INVI) para uma Escrita Expressiva e Coerente no Ensino Básico de Português L1

Este estudo analisa o impacto do ensino integrado de vocabulário no desenvolvimento da escrita narrativa em Português (L1) no início do ensino básico. Procura responder à questão: em que medida o ensino explícito e sistemático de vocabulário melhora a diversidade lexical e a qualidade narrativa na escrita de alunos do 2.º ano?

Com uma perspetiva sociocrítica e um desenho quase-experimental de métodos mistos, o estudo foi realizado num agrupamento de escolas em contextos socioeconomicamente desfavorecidos de Cascais, envolvendo turmas do 2.º ano (2 experimentais e 2 de controlo). Para garantir comparabilidade, foram excluídos alunos com necessidades educativas especiais, português como língua não materna, mobilidade escolar ou autonomia limitada de literacia. Todos realizaram testes de vocabulário, mas apenas os com competências suficientes completaram tarefas de escrita. A intervenção seguiu o modelo INVI, integrando ensino explícito de vocabulário e escrita narrativa. Decorreu diariamente (30–60 minutos), de janeiro a junho de 2025, com módulos de adjetivos, nomes e verbos, promovendo relações semânticas, variação lexical e planeamento metacognitivo. Foram aplicados pré e pós-testes de vocabulário e escrita. A diversidade lexical foi medida com TTR e MTLT e a qualidade narrativa por critérios macro e microestruturais. Os resultados mostram ganhos significativos no grupo experimental em vocabulário, diversidade lexical e qualidade narrativa, evidenciando a eficácia do modelo INVI como abordagem replicável no desenvolvimento inicial da escrita.

**Palavras-chave**

→ ensino do vocabulário  
→ escrita narrativa  
→ 1.º CEB  
→ Português L1s  
→ diversidade lexical

### Research practices in early years education for environmental literacy on edible plants: An experience in a kindergarden in Guarda

Environmental literacy in pre-school education is crucial for fostering ecological awareness from an early age, as it encourages values such as responsibility, cooperation and care in environmental protection. This study aims to analyse how investigative practices in early childhood education—involving observation, care and narratives focused on ecological awareness—can contribute to environmental literacy regarding edible plants. Through the collaborative development of a teaching sequence (TS), a living laboratory of edible plants will be established as a pedagogical space to promote investigations into plant care. As an initial step and exploratory research, the question ‘What is a plant to you?’ was posed. The responses were analysed inductively and in the light of the literature on science education. From the nine responses given by the children (aged 4 and 7), three categories emerged: 1 a living being in a state of change, as the plant is perceived as a dynamic organism that is born, grows and develops; 2 vital needs, with particular emphasis on the elements essential to its survival, such as water, sunlight and human care; 3 morphological aspects, with recognition of the visible parts of the plant, such as leaves, flowers and roots; and 4 a lack of responses. We

conclude that children’s initial conceptions reveal a significant initial understanding of plant life and its dependence on environmental factors, which indicate both the potential and the challenge of early environmental education. The next step will be to take this potential and challenge into account in the construction, application and analysis of the SD, with the aim of promoting investigative practices that encourage environmental literacy.

#### Keywords

- environmental literacy
- experimental activities
- early years education

### Práticas de investigação na educação infantil para a alfabetização ambiental sobre plantas comestíveis: Uma experiência num jardim de infância em Guarda

A literacia ambiental na educação pré-escolar é crucial para despertar desde cedo a consciência ecológica, pois estimula valores como responsabilidade, cooperação e cuidados na proteção ambiental. Este estudo tem por objetivo analisar como práticas investigativas na educação infantil, que envolvam observação, cuidado e narrativas voltadas à consciência ecológica, podem contribuir para a literacia ambiental de plantas comestíveis. Através da construção colaborativa de uma sequência didática (SD), será implementado um laboratório vivo de plantas alimentícias como espaço pedagógico para promover investigações sobre o cuidado com as plantas. Como procedimentos iniciais e pesquisa exploratória, foi aplicado o questionamento: “O que é para ti uma planta”. As respostas foram analisadas indutivamente e à luz da literatura da área de ensino de ciências. Das nove respostas das crianças (4 e os 7 anos), surgiram três categorias: 1 ser vivo em transformação, pois a planta é percebida como um organismo dinâmico, que nasce, cresce e se desenvolve; 2 necessidades vitais, com destaque para os elementos indispensáveis à sua sobrevivência, como água, sol e cuidados humanos; 3 aspetos morfológicos, com reconhecimento das partes visíveis da planta, como folhas, flores e raízes e 4 ausência de respostas. Concluímos que as concepções iniciais das crianças revelam uma compreensão inicial significativa acerca da vida vegetal e da sua dependência de fatores ambientais, as quais indicam tanto o potencial quanto o desafio da educação ambiental precoce. O próximo passo será a consideração desse potencial e desafio na construção, aplicação e análise da SD, esperando promover práticas investigativas que incentivem a literacia ambiental.

#### Palavras-chave

- literacia ambiental
- atividades práticas
- educação infantil

### Repositioning Consent in Mandatory Physical Education: From Participation to “Competition Intensity”

Introduction. In mandatory Physical Education (PE), the issue is not whether competition is good or bad but how win-loss comparison is organized in learning. Competition can occasion challenge, yet when comparison becomes central it may cause humiliation or exclusion. Under compulsory schooling, consent cannot be framed as participating or not.

Objective. This study presents a conceptual framework for reconsidering ASK, one of four normative arguments on competition in PE (AVOID, ASK, ADAPT, ACCEPT) by Aggerholm et al. (2018), holding that students should choose whether to engage in competitive activities. It redirects consent toward competition intensity as an adjustable element of lesson design.

Methodology. This theoretical study uses conceptual and normative analysis. Drawing on the test/contest distinction, it examines whether consent can be redirected to an adjustable design element and what conditions competition intensity requires. Normative criteria are consistency with compulsory schooling, adjustability in lesson structure, and connection to learner engagement and experiential quality.

Results. Competition intensity indicates not exertion or task difficulty but the degree to which contest is embedded in learning, adjustable through win-loss weighting, comparison-reinforcing formats, scoring, match frequency, and assessment links. A teacher might lower intensity by avoiding ranked round-robins, reducing scored matches, and decoupling outcomes from grading. This requires that intensity not be conflated with test, remain adjustable in lesson design, and connect to learner engagement.

Conclusion. ASK is reconstructed as consent to competition intensity, making consent a practical design issue in mandatory PE.

#### Keywords

- competition norms
- ASK
- test–contest distinction
- competition intensity
- lesson structure

### Reposicionando o Consentimento na Educação Física Obrigatória: Da Participação à “Intensidade Competitiva”

Introdução. Na Educação Física (EF) obrigatória, a questão não é se a competição é boa ou má, mas como a comparação é organizada na aprendizagem. A competição pode ocasionar desafio, mas quando se torna central pode causar humilhação ou exclusão. No ensino obrigatório, o consentimento não pode ser enquadrado como participar ou não.

Objetivo. Este estudo apresenta um quadro conceitual para reconsiderar o ASK, um dos quatro argumentos normativos sobre competição na EF (AVOID, ASK, ADAPT, ACCEPT) de Aggerholm et al. (2018), que defende que os alunos devem escolher se participam de atividades competitivas. Redireciona o consentimento para a intensidade competitiva como elemento ajustável do planejamento.

Metodologia. Estudo teórico com análise conceitual e normativa. Pela distinção test/contest, examina se o consentimento pode ser redirecionado a elemento ajustável do planejamento e que condições a intensidade competitiva requer. Critérios: consistência com ensino obrigatório, ajustabilidade na estrutura da aula e conexão com engajamento e qualidade experiencial.

Resultados. Intensidade competitiva não indica esforço ou dificuldade, mas o grau em que o contest se incorpora na aprendizagem, ajustável por ponderação de resultados, formatos comparativos, pontuação, frequência de jogos e vínculos com avaliação. O professor pode reduzi-la evitando formatos classificatórios, reduzindo jogos pontuados e desvinculando resultados da nota. Requer-se que não seja confundida com test, permaneça ajustável no planejamento e se conecte ao engajamento.

Conclusão. ASK é reconstruído como consentimento à intensidade competitiva, tornando-o questão prática de planejamento na EF obrigatória.

#### Palavras-chave

- normas de competição
- ASK
- distinção test–contest
- comparação institucionalizada
- estrutura da aula

### Repositioning Physical Literacy in Teacher Education: A Review of Research Trends and a Theoretical Integration

Introduction: Recent teacher education research emphasizes well-being and professional sustainability alongside pedagogy. While Physical Literacy (PL)—a holistic disposition of physical, cognitive, affective, and social dimensions—is a foundational ability, it lacks systematic study in teacher training. This absence risks narrow implementation without understanding its holistic nature.

Objective: This study examines the necessity of PL in teacher education and proposes a theoretical framework repositioning PL as a core professional ability for all teachers.

Methodology: This systematic literature review analyzes PL research in teacher education. Literature in English and Japanese is retrieved using keywords like “physical literacy” and “teacher education.” Inclusion criteria focused on PL within pedagogy and teacher formation.

Results: The review identifies three categories: (1) measurement of teachers’ PL levels, (2) transformation of PL understanding during training, and (3) theoretical/policy linkages. Findings show PL is predominantly treated as a “teaching subject” rather than a professional foundation for teachers.

Discussion: PL should be understood as a teacher’s capability to regulate their physical state, build relationships bodily, and reflect on experiences to inform practice. This transcends “content knowledge,” integrating well-being and expertise.

Conclusion: This study repositioned PL as a framework for teacher education. While existing research focuses on instructional outcomes, we highlight PL as a foundation for well-being and competence. Future empirical validation is required. Viewing PL as an embodied foundation provides a basis for restructuring teacher education theory and practice.

#### Keywords

- physical literacy
- teacher well-being
- teacher capability
- professional expertise
- embodied learning

### You Don’t Have to Do It Alone: The Role of Peer Mentoring in Final Degree Projects in Higher Education

Introduction: The Final Degree Project (FDP) is often perceived as an isolated and emotionally demanding task, with students frequently reporting feelings of loneliness despite institutional support. An innovative teaching experience is presented that redefines the FDP as an immersive research training process, shifting the focus from the final product to the development of transversal, research, and socio-emotional competencies.

Objective: The aim was to design and implement a collaborative and supportive model that enhanced students’ engagement, autonomy, and well-being throughout the FDP process.

Methodology: The proposal was grounded in a socio-constructivist approach and structured in three phases. First, an immersion phase integrated students into active research groups, where they participated in activities such as data collection, team meetings, and outreach. Second, a peer mentoring model was implemented, in which PhD students supported undergraduate and master’s students through academic, methodological, and statistical guidance, as well as emotional support. This relationship fostered a collaborative learning environment. Finally, the autonomy phase encouraged students to assume decision-making and self-regulate their research process, with ongoing supervision from the academic tutor. Qualitative data were collected through open-ended questionnaires to evaluate the experience.

Results: Preliminary results showed enhanced academic motivation, improved work quality, and reduced academic anxiety.

Conclusion: These findings suggest that combining supervision, peer mentoring, and guided autonomy transformed the FDP into a meaningful learning experience and supported and collaborative practices in higher education.

#### Keywords

- collaborative learning
- motivation
- innovation
- teaching
- higher education

### Artificial Intelligence and Mathematics Education: Reframing Mathematical Reasoning, Proof, Learning, and Ethical Governance in the Generative AI Era

Introduction: Artificial Intelligence (AI) has assumed an increasingly important role in contemporary mathematics, influencing the production, teaching, and learning of mathematical knowledge, as well as the ethical and epistemological issues associated with it.

Objectives: We aim to analyse how AI is transforming mathematics and mathematics education, considering its foundations, its support for reasoning and proof, its pedagogical potential, and the ethical and regulatory challenges it raises.

Methodology: The study is based on a critical and integrative review of contemporary literature, bringing together contributions from mathematics education, artificial intelligence, learning sciences, philosophy of mathematics, and regulatory studies.

#### Keywords

- artificial intelligence
- mathematics education
- mathematical reasoning
- generative AI
- ethical governance

Results: The analysis shows that AI is reconfiguring mathematical practice by supporting conjecture generation, proof, and formal verification, while also introducing new possibilities for tutoring, feedback, assessment, and personalisation. It also highlights challenges related to opacity, bias, over-reliance, academic integrity, and unequal access.

Conclusion: It is concluded that the future of AI in mathematics will depend on the development of transparent, ethical, and pedagogically grounded forms of collaboration between human judgement and computational systems.

### Inteligência Artificial e Educação Matemática: Reconfigurar o Raciocínio Matemático, a Prova, a Aprendizagem e a Governança Ética na Era da IA Generativa

Introdução: A Inteligência Artificial (IA) tem vindo a assumir um papel crescente na Matemática contemporânea, influenciando os modos de produção, ensino e aprendizagem do conhecimento matemático, bem como as questões éticas e epistemológicas que lhe estão associadas.

Objetivos: Este capítulo pretende analisar de que forma a IA está a transformar a Matemática e a educação matemática, considerando os seus fundamentos, o apoio ao raciocínio e à demonstração, as potencialidades pedagógicas e os desafios éticos e regulatórios.

Metodologia: O estudo baseia-se numa revisão crítica e integradora da literatura contemporânea, reunindo contributos da educação matemática, da inteligência artificial, das ciências da aprendizagem, da filosofia da matemática e dos estudos sobre regulação.

Resultados: A análise mostra que a IA está a reconfigurar a prática matemática ao apoiar a geração de conjeturas, a demonstração e a verificação formal, bem como ao introduzir novas possibilidades de tutoria, feedback, avaliação e personalização. Evidenciam-se também desafios relacionados com opacidade, enviesamento, dependência excessiva, integridade académica e desigualdades no acesso.

Conclusão: Conclui-se que o futuro da IA na Matemática dependerá da construção de formas de colaboração transparentes, éticas e pedagogicamente sustentadas entre o juízo humano e os sistemas computacionais.

#### Palavras-chave

- inteligência artificial
- educação matemática
- raciocínio matemático
- IA generativa
- governança ética

### Who Designs the Learning Environment? Evaluating Cognitive Load and Subjective Experience in Youth Basketball

In youth sports pedagogy, the distribution of autonomy is a key factor in athlete engagement and learning quality. This study investigated how three different training organization models—coach-led, random, and athlete-led— influenced the subjective experience and cognitive load of U14 female basketball players (n=29). A within-subject, repeated-measures design was used over three consecutive microcycles. Perceptual responses were evaluated using the NASA-TLX scale to measure workload and open-ended prompts to capture the qualitative essence of each microcycle. Statistical analysis revealed a significant effect of training design on perceived workload; NASA-TLX scores were significantly higher during the coach-led week (p<0.001) compared to both the random and athlete-led weeks, suggesting that traditional, externally controlled environments may impose a higher cognitive and temporal demand on young learners. Qualitative data from open-ended responses further differentiated the conditions: while the coach-led microcycle was predominantly described as “normal” or “easy” (indicating routine), the athlete-led microcycle was most frequently associated with terms such as “fun” and “active.” The random condition elicited a more complex profile, described as both “difficult” and “fun.” These findings suggest that increasing athlete involvement in the design of the training process not only reduces perceived negative workload but also fosters a more positive and engaged learning climate. Practitioners should consider participatory models to optimize the pedagogical environment in youth basketball.

#### Keywords

- autonomy
- cognitive load
- sports pedagogy
- youth basketball

### Quem desenha o ambiente de aprendizagem? Avaliação da carga cognitiva e da experiência subjetiva no basquetebol juvenil

Na pedagogia do desporto juvenil, a distribuição da autonomia é um fator-chave no envolvimento dos atletas e na qualidade da aprendizagem. Este estudo investigou como três modelos de organização do treino—orientado pelo treinador, aleatório e orientado pelas atletas— influenciaram a experiência subjetiva e a carga cognitiva de jogadoras de basquetebol feminino U14 (n=29). Foi utilizado um desenho intra-sujeitos, com medidas repetidas, ao longo de três microciclos consecutivos. As respostas percetivas foram avaliadas com a escala NASA-TLX e perguntas abertas. A análise revelou um efeito significativo do desenho do treino na carga percebida; os valores foram mais elevados

#### Palavras-chave

- autonomia
- carga cognitiva
- pedagogia do desporto
- basquetebol jovem

na semana orientada pelo treinador (p<0.001) do que nas restantes, sugerindo maior exigência cognitiva. Qualitativamente, o microciclo orientado pelo treinador foi descrito como “normal” ou “fácil”, o orientado pelas atletas como “divertido” e “ativo”, e o aleatório como “difícil” e “divertido”. Estes resultados indicam que aumentar o envolvimento das atletas no treino reduz a carga negativa e promove um ambiente de aprendizagem mais positivo.

### From Data to Action: Quantitative Research for Whole-School Empowerment in Safe and Responsible Internet Use

Introduction: Schools are increasingly required to make decisions based on empirical evidence. However, data collected in educational contexts are often underused and rarely translated into action. This gap is especially relevant in the field of digital safety, where the complexity of students' online experiences requires informed and context-sensitive interventions.

Objective: To use quantitative research for whole-school empowerment, promoting the transformation of data into educational action within a school context and actively involving teachers in the design of intervention programs.

Methodology: The process was structured in four phases. First, a diagnostic phase based on multi-informant data (students, teachers, and families) provided a comprehensive picture of the school context, focusing on safe and responsible internet use.

Second, a feedback phase involved presenting and contextualizing the results to the School Coexistence Committee (SCC), a multidisciplinary team including teachers, counsellors, and school leadership. Third, a participatory discussion phase enabled the SCC to interpret the findings and identify key areas for intervention. Finally, a co-design phase focused on developing actionable intervention proposals based on the identified needs.

#### Keywords

- data-driven decision making
- digital safety
- teacher empowerment
- co-creation
- participatory processes

Results: Based on SCC co-created proposals, key action areas were identified: family digital training, critical digital literacy, and strategies for online behavior and emotional regulation.

Conclusion: The study highlights the value of combining quantitative research with participatory processes. Moving from data to action enabled the SCC to take an active role in decisionmaking and co-construct interventions promoting safer digital practices.

### Children's Digital Stories and Collaborative Pedagogical Supervision: Contributions to Teacher Professional Development in Primary Education

In the context of 21st-century educational demands, marked by the increasing integration of digital technologies and the need for innovative pedagogical practices, it is essential to rethink models of teacher professional development.

This study, developed as part of the Master's in Pedagogical Supervision, aims to understand how the use of children's digital stories, combined with a model of collaborative pedagogical supervision, can contribute to teacher professional development in primary education. A qualitative approach is adopted, framed within the participatory action research paradigm, emphasizing critical reflection, collaboration, and shared knowledge construction among teachers. The study will be conducted in a school cluster, involving primary school teachers who will participate in the implementation of digital stories in the classroom and in collaborative supervision processes. Data collection will include participant observation, reflective dialogues, interviews, and focus groups, allowing for an in-depth and triangulated analysis. It is expected that the integration of digital narratives will promote active learning methodologies, develop students' critical thinking, and encourage pedagogical innovation. Additionally, collaborative pedagogical supervision is anticipated to serve as a formative tool capable of enhancing teacher professional development in a situated, reflective, and sustainable way.

This study will contribute to knowledge on pedagogical supervision and the integration of digital technologies, with relevant implications for continuous teacher training and the improvement of educational practices in primary education.

#### Keywords

- collaborative pedagogical supervision
- digital storytelling
- teacher professional development
- pedagogical innovation
- primary education

### Histórias digitais infantis e supervisão pedagógica colaborativa: contribuições para o desenvolvimento profissional docente

No contexto das exigências educativas do século XXI, marcadas pela crescente integração das tecnologias digitais e pela necessidade de práticas pedagógicas inovadoras, torna-se fundamental repensar os modelos de desenvolvimento profissional docente.

Este estudo, desenvolvido no âmbito do Mestrado em Supervisão Pedagógica, visa compreender de que forma a utilização de histórias digitais infantis, articulada com um modelo de supervisão pedagógica colaborativa, pode contribuir para o desenvolvimento profissional docente no 1.º ciclo do ensino básico. Adota-se uma abordagem qualitativa, enquadrada no paradigma da investigação-ação participada, privilegiando a reflexão crítica, a colaboração e a construção partilhada de conhecimento entre os docentes. O estudo será implementado num agrupamento de escolas, envolvendo professores do 1.º ciclo que participarão na aplicação de histórias digitais em sala de aula e em processos de supervisão colaborativa. A recolha de dados incluirá observação participante, diálogos reflexivos, entrevistas e focus groups, permitindo uma análise aprofundada e triangulada. Espera-se que a integração de narrativas digitais promova metodologias de aprendizagem ativa, desenvolva o pensamento crítico dos alunos e

#### Palavras-chave

- supervisão pedagógica colaborativa
- histórias digitais
- desenvolvimento profissional docente
- inovação pedagógica
- 1.º ciclo do ensino básico

incentive a inovação pedagógica. Paralelamente, prevê-se que a supervisão pedagógica colaborativa funcione como dispositivo formativo capaz de potenciar o desenvolvimento profissional docente de forma situada, reflexiva e sustentável.

Este estudo contribuirá para o conhecimento sobre supervisão pedagógica e integração das tecnologias digitais, com implicações relevantes para a formação contínua de professores e para a melhoria das práticas educativas no 1.º ciclo do ensino básico.

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### Beyond Pedagogical Silence: PEBRID’s Trajectory and perspectives on pedagogical practice in the Rio Doce Basin

This paper analyzes the trajectory of the Rio Doce School Program (PEBRID) as a continuing education initiative for educators in the Rio Doce Basin (MG), Brazil. The program’s genesis lies in an ethical question: how does the Fundão dam collapse challenge education? The proposal aims to break “pedagogical silence”—the omission of sensitive topics such as mining and the disaster in curricula—transforming the “unspoken” into an object of scientific and social study (Antunes-Rocha; Hunzicker, 2022).

PEBRID’s path transcends traditional course logic, configuring itself as an integrated network for the revitalization of ways of life. Its trajectory is guided by three pillars: the Political-Pedagogical axis, which affirms the school as a space for rights; the Epistemological axis, promoting an ecology of knowledges between scientific knowledge and territorial reality; and the Methodological axis, based on alternating pedagogy and socio-anthropological territorial research (Antunes-Rocha, 2025). This work is characterized as a documentary and bibliographic analysis of the program’s.

It is concluded that PEBRID offers perspectives for including socio-environmental themes in curricula, challenging teachers to reorganize pedagogical practices through the lens of sustainability and “well-living”. The program reaffirms education as a central pillar in full reparation and in building a new territorial project for the affected populations.

#### Keywords

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- pedagogical silence ANTUNES-ROCHA, M. I. et al. (org.). Education and mining from the perspective of
- mining revitalization. 1. ed. Contagem: Editora Escola Cidadã, 2025. v. 1.

### Para além do Silêncio Pedagógico: Trajetória do PEBRID e as perspectivas do fazer pedagógico na Bacia do Rio Doce

Este trabalho analisa a trajetória do Programa Escola do Rio Doce (PEBRID) como ação de formação continuada de educadores na Bacia do Rio Doce (MG), Brasil. A gênese do programa reside na interrogação ética: em que o rompimento da barragem de Fundão interroga a educação? A proposta visa romper o “silêncio pedagógico” – a omissão de temas sensíveis como mineração e o desastre nos currículos – transformando o “não-dito” em objeto de estudo científico e social (Antunes-Rocha; Hunzicker, 2022).

O percurso do PEBRID transcende a lógica de curso tradicional, configurando-se como rede integrada para a revitalização dos modos de vida. A trajetória é norteadada pelos eixos: Político-Pedagógico, que afirma a escola como espaço de direitos; Epistemológico, que promove a ecologia de saberes entre o conhecimento científico e a realidade territorial; e Metodológico, pautado na pedagogia da alternância e na pesquisa socioantropológica do território (Antunes-Rocha, 2025). Este trabalho caracteriza-se como análise documental e bibliográfica dos registros do programa.

Conclui-se que o PEBRID oferece perspectivas para a inclusão da temática socioambiental nos currículos, desafiando professores a reorganizar o fazer pedagógico sob a ótica da sustentabilidade e do bem viver. O programa reafirma a educação como pilar central na reparação integral e na construção de um novo projeto de território para os povos atingidos.

ANTUNES-ROCHA, M. I.; HUNZICKER, A. C. M.. A prática do silêncio pedagógico no contexto minerário. Revista brasileira de educação básica, 2022.

ANTUNES-ROCHA, M. I. et al. (org.). Educação e mineração na perspectiva da revitalização. 1. ed. Contagem: Editora Escola Cidadã, 2025. V. 1. 176 p.

#### Palavras-chave

- PEBRID
- formação de professores
- silêncio pedagógico
- mineração

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### Science Communication in European University Alliances: Convergences and Gaps of Practice under the European Education Area and European Research Area Framework

European University Alliances are expected to play a pivotal role in advancing the European Education Area and the European Research Area, particularly by fostering openness, societal engagement, and knowledge valorisation as stated in the European Universities Initiative. Within this framework, science communication emerges as a key dimension to operationalise core European Commission priorities, including Open Science, Responsible Research and Innovation, citizen engagement, and the societal impact of research. However, despite its strategic relevance, there is limited understanding of how these policy orientations are interpreted and translated into science communication practice within university alliances.

In this sense, this study intends to explore how one European University Alliance engages with and responds to European-level expectations regarding science communication. It analyses the extent to which the alliance’s emerging practices and researchers’ perspectives align with policy frameworks guiding alliances, such as interdisciplinarity, inclusiveness, co-creation, and transnational collaboration.

Drawing on data from an ongoing multi-method study (institutional mapping, survey and interviews), the analysis is expected to reveal both convergences and gaps between European policy discourse and institutional realities.

European University Alliances have the potential to function as strategic implementation spaces for EU science communication priorities. This study contributes to the discussion on science communication role within universities alliances by foregrounding the need for more reflexive, context-sensitive approaches that acknowledge diversity in meanings and practices across European higher education.

#### Keywords

- science communication
- european education area
- european research area
- European University Alliance
- convergences and gaps

### Repositioning Physical Literacy in Teacher Education: A Review of Research Trends and a Theoretical Integration

**Introduction:** Recent teacher education research emphasizes well-being and professional sustainability alongside pedagogy. While Physical Literacy (PL)—a holistic disposition of physical, cognitive, affective, and social dimensions—is a foundational ability, it lacks systematic study in teacher training. This absence risks narrow implementation without understanding its holistic nature.

**Objective:** This study examines the necessity of PL in teacher education and proposes a theoretical framework repositioning PL as a core professional ability for all teachers.

**Methodology:** This systematic literature review analyzes PL research in teacher education. Literature in English and Japanese is retrieved using keywords like “physical literacy” and “teacher education.” Inclusion criteria focused on PL within pedagogy and teacher formation.

**Results:** The review identifies three categories: (1) measurement of teachers’ PL levels, (2) transformation of PL understanding during training, and (3) theoretical/policy linkages. Findings show PL is predominantly treated as a “teaching subject” rather than a professional foundation for teachers.

#### Keywords

- physical literacy
- teacher well-being
- teacher capability
- professional expertise
- embodied learning

**Discussion:** PL should be understood as a teacher’s capability to regulate their physical state, build relationships bodily, and reflect on experiences to inform practice. This transcends “content knowledge,” integrating well-being and expertise.

**Conclusion:** This study repositioned PL as a framework for teacher education. While existing research focuses on instructional outcomes, we highlight PL as a foundation for well-being and competence. Future empirical validation is required. Viewing PL as an embodied foundation provides a basis for restructuring teacher education theory and practice.

### Coaching as Environmental Design: An Ecological Perspective on Training Practice

**Introduction;** Coaching is often described as decision-making, but coaches also organize tasks, constraints, and training structure to induce performance changes. Coaching can thus be interpreted as the design of a learning environment. **Objective;** This study aims to examine and conceptually organize coaching practice as environmental design using reflective coaching journals.

**Methodology;** Coaching journals from a small athletics training group (three athletes) during preparation for the 2026 season were analyzed. The journals recorded task settings, environmental adjustments, training structure, and athlete responses. Data were examined using an interpretive qualitative approach to identify patterns in coaching practice.

**Results;** Coaching involved the adjustment of tasks, constraints, and session structure in addition to direct instruction. Training conditions were modified according to performance problems, including changing task focus, manipulating constraints, and progressively increasing training intensity. At the team level, a structural constraint was introduced so that all athletes completed a common training phase at the end of each session, combining individual practice with shared conditioning work. These cases show that coaching operated through continuous adjustment of the training context rather than only situational decisions. These patterns suggest that coaching decisions were embedded within the design and adjustment of the training environment.

**Conclusion;** Coaching can be understood as the design of tasks, constraints, and training structure, not only as decision-making. Coaches influence performance through environmental adjustment, supporting an ecological perspective on coaching and training design.

#### Keywords

- coaching
- environmental design
- constraints
- ecological perspective
- training practice

### Coaching como Desenho do Ambiente: Uma Perspectiva Ecológica sobre a Prática de Treino

**Introdução:** O coaching é frequentemente descrito como tomada de decisão, mas os treinadores também organizam tarefas, restrições e a estrutura do treino para provocar mudanças no desempenho. O coaching pode, assim, ser interpretado como desenho do ambiente.

**Objetivo:** Este estudo visa examinar e organizar conceitualmente a prática de coaching como desenho do ambiente com base em diários reflexivos.

**Metodologia:** Analisaram-se diários de coaching de um pequeno grupo de atletismo (três atletas) durante a preparação para a temporada de 2026. Os registros incluíram tarefas, ajustes do ambiente, estrutura e respostas dos atletas. Os dados foram examinados com abordagem qualitativa interpretativa para identificar padrões na prática de coaching.

**Resultados:** O coaching envolveu o ajuste de tarefas, restrições e estrutura das sessões, além de instruções diretas. As condições foram modificadas conforme problemas de desempenho, incluindo mudança de foco, manipulação de restrições e aumento progressivo da intensidade. No nível do grupo, foi introduzida uma restrição estrutural para que todos realizassem uma fase comum ao final de cada sessão, combinando prática individual e trabalho coletivo. Isso

#### Palavras-chave

- coaching
- desenho do ambiente
- restrições
- perspectiva ecológica
- prática de treino

indica que o coaching ocorreu por ajustes contínuos do contexto, e não apenas por decisões situacionais. Esses padrões sugerem que as decisões do treinador estavam incorporadas no desenho e ajuste do ambiente.

**Conclusão:** O coaching pode ser entendido como desenho de tarefas, restrições e estrutura, e não apenas como tomada de decisão. Os treinadores influenciam o desempenho pelo ajuste das condições do ambiente, sustentando uma perspectiva ecológica sobre o coaching e o treino.

### Environmental Education and Teaching about Mining in Ipatinga, Minas Gerais, Brazil: Contributions from the Rio Doce School Program

The collapse of the Fundão Dam (2015) caused significant socio-environmental impacts in the Rio Doce basin. In response, the Rio Doce School Program (PEBRID) was created in 2021, aimed at the continuing education of teachers in affected territories. In Ipatinga (MG), although there was no direct deposition of tailings, socioeconomic effects were observed, highlighting the need for a critical integration of mining into the school context, in dialogue with Environmental Education and environmental citizenship concepts addressed based on the studies of António Almeida. This study analyzes the presence of this theme in schools and the contributions of PEBRID to teacher education and the development of didactic strategies. A qualitative approach is adopted, based on action research, as the researcher being part of the Program also contributed to interventions in the educational reality of the municipality of Ipatinga. The analysis encompasses Political-Pedagogical Projects from schools in Ipatinga, municipal and educational documents, and PEBRID's training practices. Data were examined through documentary and thematic analysis. The results indicate the fragility or absence of critical approaches to mining in school curricula, even when environmental

themes are present, constituting what authors such as Hunzicker and Antunes-Rocha describe as pedagogical silence, a structural problem involving the erasure of sensitive educational topics in regions affected by disasters. On the other hand, the Program's actions contributed to teacher education and to the development of didactic proposals. It concludes the study supports similar contexts by highlighting limits and potential of integrating mining into Environmental Education.

#### Keywords

- 1<sup>st</sup> environmental education
- 2<sup>nd</sup> teacher education
- 3<sup>rd</sup> mining
- 4<sup>th</sup> curriculum

### Educação Ambiental e Ensino sobre Mineração em Ipatinga, Minas Gerais, Brasil: Contribuições do Programa Escola Rio Doce

O rompimento da Barragem de Fundão (2015) gerou impactos socioambientais na bacia do Rio Doce. Em resposta, foi criado, em 2021, o Programa Escola do Rio Doce (PEBRID), voltado à formação continuada de educadores em territórios atingidos. Em Ipatinga (MG), embora sem deposição de rejeitos, observaram-se efeitos socioeconômicos que evidenciam a necessidade de inserção crítica da mineração no contexto escolar, em diálogo com a Educação Ambiental e com a cidadania ambiental, conceitos abordados a partir dos estudos de António Almeida. A investigação analisa a presença dessa temática nas escolas e as contribuições do PEBRID para a formação docente e produção de estratégias didáticas. Adota-se abordagem qualitativa, com pesquisa-ação, uma vez que, inserido dentro do Programa, o responsável por esta pesquisa também auxiliou na intervenção da realidade educacional do município de Ipatinga-MG. A análise compreende Projetos Político-Pedagógicos de escolas de Ipatinga, documentos municipais e pedagógicos, e práticas formativas do PEBRID. Os dados foram analisados por meio de análise documental e temática. Os resultados indicam fragilidade ou ausência de abordagens críticas sobre mineração nos currículos, mesmo quando a temática ambiental está presente, configurando o que autoras como Hunzicker e Antunes-Rocha chamam de silêncio pedagógico, problema estrutural de apagamento de temas educacionais sensíveis em regiões atingidas por desastres. Por outro lado, as ações do programa contribuíram para a formação docente e elaboração de propostas didáticas. Conclui que o estudo apoia contextos semelhantes ao destacar limites e potencial da integração da mineração na Educação Ambiental.

#### Palavras-chave

- 1<sup>a</sup> educação ambiental
- 2<sup>a</sup> formação docente
- 3<sup>a</sup> mineração
- 4<sup>a</sup> currículo

### Exploring with Digital Tools: Building Mathematical Concepts in Elementary School

This study investigates the impact of a pre-formal exploratory approach using digital tools on the learning of mathematical concepts by 2nd-grade students in the first cycle of Elementary School in Oeiras. The experimental group engages with Math Learning Center applications (Number Frames, Fractions, Clocks) to explore content in a playful, investigative manner before formal instruction, while the control group follows a traditional textbook-based approach. The use of digital tools encouraged collaboration and the sharing of strategies and representations among students, always supported and monitored by the teacher. The study aims to promote autonomy, mathematical reasoning, and the transition across active, iconic, and symbolic representations, supporting deeper conceptual understanding. Assessment is mixed: the quantitative component includes scores, averages, success rates, and descriptive and inferential analyses, with normality testing (Shapiro-Wilk) and parametric or non-parametric tests as appropriate. The qualitative component examines levels of sophistication (basic, intermediate, advanced) in relation to Duval's (2006) types of understanding: transposition, register coordination, argumentation/justification, and contextual interpretation. Preliminary results indicate higher motivation and cognitive sophistication in the experimental group. By the end of June, more complete data are expected, enabling a thorough evaluation of this approach, which could be replicated in other first-cycle classrooms to foster reasoning, mental calculation, computational thinking, and collaborative learning. This research is supported by Portuguese national funding through the FCT – Foundation for Science and Technology, I.P., under the project UIDB/03213/2020 (Linguistics Research Centre of NOVA University Lisbon- CLUNL).

#### Keywords

- elementary school mathematics
- digital tools
- pre-formal exploratory approach
- multiple representations
- reasoning and computational thinking

### Explorar com ferramentas digitais: Construção de conceitos matemáticos no 1.º ciclo

Este estudo investiga o impacto de uma abordagem exploratória pré-formal com ferramentas digitais na aprendizagem de conceitos matemáticos por alunos do 2.º ano do 1.º ciclo do Ensino Básico, no concelho de Oeiras. A turma experimental utiliza aplicações da plataforma Math Learning Center (Number Frames, Fractions, Clocks) para explorar conteúdos de forma lúdica e investigativa antes da introdução formal, enquanto a turma de controlo segue abordagem tradicional baseada no manual escolar. O uso das plataformas digitais promoveu cooperação e partilha de estratégias e representações entre os alunos, sempre com apoio e monitorização da professora. O estudo visa promover autonomia, raciocínio matemático e a transição entre representações ativas, icónicas e simbólicas, apoiando a construção de compreensão conceptual mais profunda. A avaliação é mista: a componente quantitativa inclui pontuações, médias, taxa de sucesso e análise estatística descritiva e inferencial, com testes de normalidade (Shapiro-Wilk) e testes paramétricos ou não paramétricos. A componente qualitativa analisa níveis de sofisticação (básico, intermédio e avançado) em relação aos tipos de compreensão de Duval (2006): transposição, coordenação de registos, argumentação/justificação e interpretação contextual.

Dados preliminares indicam maior motivação e sofisticação na turma experimental. Até ao final de junho, espera-se obter resultados mais completos, permitindo avaliar de forma mais significativa os efeitos desta abordagem, que poderá ser replicada em outras salas do 1.º ciclo, promovendo raciocínio, cálculo mental, pensamento computacional e aprendizagem colaborativa.

#### Palavras-chave

- ensino da matemática no 1.º ciclo
- ferramentas digitais
- abordagem exploratória pré-formal
- representações múltiplas
- raciocínio e pensamento computacional

### Investigation of Pre-Service Preschool Teachers' Higher-Order Thinking Skills in Terms of Certain Variables

Higher-order thinking skills are essential competencies encompassing cognitive processes like problem-solving, critical, and creative thinking. Supporting pre-service preschool teachers in these competencies is of great importance for guiding qualified teacher training programs. This study aims to investigate the higher-order thinking skills of pre-service preschool teachers and determine whether these skills differ significantly according to gender, grade level, and academic GPA. A correlational survey model was used. Determined by convenience sampling, the study group consists of 180 pre-service teachers (147 female, 33 male) studying in the Preschool Education Program at a state university in Turkey. Data were collected using the "Higher-Order Thinking Skills Assessment Scale" developed by Zhou et al. (2023) and adapted by Kaya et al. (2024), and analyzed using parametric tests. Results indicate that higher-order thinking skills differ significantly according to gender and academic GPA. Scores of candidates with high academic achievement were significantly higher, and a significant difference was found in favor of males regarding gender. In

#### Keywords

- 1<sup>st</sup> Higher-Order Thinking Skills
- 2<sup>nd</sup> Pre-Service Preschool Teachers
- 3<sup>rd</sup> Correlational Survey
- 4<sup>th</sup> Teacher Education

contrast, no significant difference was observed according to grade level. The findings revealed that progress in grade level alone does not create a significant differentiation. This situation underscores the necessity of deliberate curricular interventions in education faculties rather than relying on academic maturation. Accordingly, it is recommended that more space be given to practices based on critical thinking and problem-solving in teacher training programs.

### Investigação das Habilidades de Pensamento de Ordem Superior de Futuros Educadores de Infância em Termos de Certas Variáveis

As habilidades de pensamento de ordem superior são competências essenciais que englobam processos como resolução de problemas, pensamento crítico e criativo. Apoiar futuros educadores de infância nestas competências é de grande importância para guiar programas de formação docente. Este estudo visa investigar as habilidades de ordem superior de futuros educadores e determinar se diferem significativamente por gênero, ano de escolaridade e GPA. Utilizou-se um modelo de levantamento correlacional. Definido por amostragem por conveniência, o grupo de estudo consiste em 180 futuros professores (147 mulheres, 33 homens) do Programa de Educação Pré-Escolar de uma universidade estadual na Turquia. Os dados, coletados pela "Escala de Avaliação de Habilidades de Pensamento de Ordem Superior" (Zhou et al., 2023; adaptada por Kaya et al., 2024), foram analisados via testes paramétricos. Os resultados indicam que as habilidades diferem significativamente segundo o gênero e o GPA. Pontuações de alunos com alto desempenho acadêmico foram maiores, com uma diferença a favor dos homens. Em contraste, não foi observada diferença significativa pelo ano de escolaridade. Os achados revelam que o progresso no ano, por si só, não cria diferenciação significativa. Esta situação

ressalta a necessidade de intervenções curriculares deliberadas nas faculdades de educação, em vez de depender da maturação acadêmica. Recomenda-se dar mais espaço a práticas de pensamento crítico e resolução de problemas na formação de professores.

#### Palavras-chave

- 1<sup>a</sup> Habilidades de Pensamento de Ordem Superior
- 2<sup>a</sup> Futuros Educadores de Infância
- 3<sup>a</sup> Levantamento Correlacional
- 4<sup>a</sup> Formação de Professores

### Supervision in Dialogue: Perspectives of Practising Teachers and Institutional Supervisors

Supervised teaching practice is implemented through collaboration agreements between Higher Education Institutions (HEIs) and Partner Organisations (POs). This collaboration provides a privileged learning environment for students and promotes the professional development of practising teachers and supervisors, as well as institutional development (Alarcão & Canha, 2013), although the literature highlights weaknesses in this collaboration (Batista & Graça, 2021; Vieira et al., 2020). As part of a broader study, this paper presents the results of a World Café, which aimed to reflect on the collaboration between a HEI and CIs and on supervisory processes. This methodology was chosen as it encourages dialogue in both small and large groups within an informal setting (Brown & Isaacs, 2008). Eighteen people took part (10 practising teachers, 7 supervisors and 1 head), organised into four tables, with a fixed host and rotating 'travellers', with the discussions recorded on flipcharts and subsequently shared with the whole group. Content analysis identified three categories: coordination between practising teachers and supervisors; contributions to professional development; and improvement of institutional partnership. The findings highlight the need to strengthen communication and maintain regular contact beyond formal occasions; the potential of supervision as a driver of professional development; and the importance of enhancing institutional collaboration by establishing shared working times and investing in continuous professional development. These results contribute to supporting decisions that promote collaboration between the HEI and the POs, and the changes to be implemented in supervised teaching practice.

#### Keywords

- World Café
- supervisory processes
- cooperating teacher
- institucional supervisor
- colaboration

### Supervisão em Diálogo: Perspetivas de Professores Cooperantes e Supervisores Institucionais

A prática de ensino supervisionada concretiza-se através de protocolos de colaboração entre Instituições de Ensino Superior (IES) e Instituições Cooperantes (IC). Esta colaboração constitui um espaço privilegiado de aprendizagem para os/as estudantes e promove o desenvolvimento profissional de cooperantes e supervisores e o desenvolvimento institucional (Alarcão & Canha, 2013), embora a literatura evidencie fragilidades nessa colaboração (Batista & Graça, 2021; Vieira et al., 2020). Inserida num estudo mais amplo, esta comunicação apresenta os resultados de um World Café, que teve como objetivos refletir sobre a colaboração entre uma IES e as IC e os processos supervisivos. Esta metodologia foi escolhida por favorecer o diálogo em pequeno e grande grupo, num ambiente informal (Brown & Isaacs, 2008). Participaram 18 pessoas (10 cooperantes, 7 supervisores/as e 1 diretora), organizadas em 4 mesas, com anfitrião fixo e "viajantes" rotativos, tendo as discussões sido registadas em papel cenário e posteriormente partilhadas em grande grupo. A análise de conteúdo permitiu identificar três categorias: articulação entre cooperantes e supervisores/as; contributos para o desenvolvimento profissional; melhoria da parceria institucional. Os resultados evidenciam a necessidade de reforçar a comunicação e a regularidade do contacto, para além de momentos formais; o potencial da supervisão como motor de desenvolvimento profissional e a importância de intensificar a colaboração institucional, criando tempos comuns de trabalho e investindo em formação contínua. Estes resultados contribuem para sustentar decisões que favoreçam a colaboração entre a IES e as IC e as alterações a serem realizadas na prática de ensino supervisionada.

#### Palavras-chave

- World Café
- processos supervisivos
- professor/a cooperante
- supervisor/a institucional
- colaboração

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### Peer Instruction in the context of an Art Education project

Active learning occurs when students take an active role in their learning, engaging with the material, interacting with peers, and developing critical thinking, problem-solving, and social skills. In the Maio Criativo, an annual Artistic Intervention and Animation Project at a higher education institution, Peer Instruction (PI) is applied within Art Education activities. As a form of active learning, PI encourages students to collaborate in problem-solving and knowledge construction (Shroff et al., 2021). In this project, students with specialized artistic training design and lead workshops in music, photography, dance, visual arts, theater, and integrated arts, which are attended by their peers. Using a case study methodology, the research aimed to explore the significance of these practices for student development and their potential as a pedagogical innovation in higher education. Data were collected through participant observation and reflective journals, followed by content analysis. Findings indicate that student-instructors develop skills in group management and leadership of collaborative teaching and artistic creation; workshop participants broaden their artistic knowledge and experience; and all participants strengthen group cohesion and a sense of belonging within the educational community. As an innovative approach in its context, PI has proven to be an effective, engaging, and motivating teaching method.

#### Keywords

→ active learning  
→ peer instruction  
→ art education  
→ pedagogical innovation

### Peer Instruction no contexto de um projeto de Educação Artística

A aprendizagem ativa efetiva-se quando o estudante tem um papel ativo na sua aprendizagem, estando motivado, envolvido e em interação com pares, desenvolvendo o pensamento crítico, capacidade de resolução de problemas e competências sociais. No Projeto de Intervenção e Animação Artísticas Maio Criativo, que se desenvolve anualmente numa IES, é adoptada a metodologia de Peer Instruction (PI) em atividades de Educação Artística. Sendo uma forma de aprendizagem ativa, os estudantes interagem, ajudando-se na resolução de problemas e na construção de conhecimento (Shroff et al., 2021). No Projeto referido, os estudantes que têm formação artística específica concebem e dinamizam ateliês de música, fotografia, dança, artes plásticas, teatro e expressões integradas, que são frequentados por outros, seus pares. Seguindo uma metodologia de estudo de caso, realizou-se uma investigação com os objetivos de conhecer a importância destas práticas para a formação dos estudantes e também de refletir sobre o seu potencial enquanto iniciativa de inovação pedagógica no ensino superior. Para tal, para além da observação participante, foram recolhidos registos reflexivos junto dos intervenientes e foi realizada uma análise de conteúdo a esses registos. Os resultados e a respetiva discussão acentuam que os «estudantes-instrutores» adquirem e consolidam competências para gerir grupos e liderar processos de ensino e de criação artística colaborativa; os estudantes que frequentam os ateliês alargam o seu conhecimento e experiência nas áreas artísticas; todos desenvolvem o espírito de grupo e de pertença à comunidade educativa. Como abordagem inovadora no seu contexto, a PI tem-se revelado um método de ensino eficaz, significativo e motivador.

#### Palavras-chave

→ aprendizagem ativa  
→ peer instruction  
→ educação artística  
→ inovação pedagógica

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### Fostering a positive Research Culture in CI&DEI: Insights from the INSIDE Project

Research culture is increasingly recognised as a key driver of quality, integrity, and societal relevance of research. It described the shared values, behaviours, expectations, attitudes, norms, and practices that shape how research is done, supported, assessed and communicated within an institution. However, persistent structural and cultural barriers continue to hinder the development of inclusive, collaborative, and sustainable research environments.

In this sense, and considering the need to address key vulnerabilities identified in the CI&DEI's recent evaluation conducted by the Foundation for Science and Technology, the INSIDE project was

designed. It aims to analyse and strengthen research culture within CI&DEI through a comprehensive and evidence-based framework. The objectives of the INSIDE project are threefold: (i) to assess perceptions and practices related to research culture across different institutional roles and career stages; (ii) to identify key barriers and enabling factors shaping positive research environments; and (iii) to co-design actionable strategies to foster positive and sustainable research culture.

Strategically aligned with the Research Culture Roadmap of the University College of London, INSIDE is similarly organised in three steps (Consultation, Roadmap, and Pilots). It adopts a mixed-methods design, combining a survey, semi-structured interviews, and participatory workshops evolving all CI&DEI community.

INSIDE intends to provide an empirically grounded and participatory framework to support institutional transformation. It is expected that its results could contribute to advancing research culture debates and offer actionable and scalable insights for CI&DEI development.

#### Keywords

→ research culture  
→ research Community  
→ perceptions and practices  
→ co-designed strategies

### Autobiographical narratives in adult education: investigative uses and formative potential

In the field of adult education, autobiographical narratives have become a key means of accessing formative trajectories, identity processes, and educational experiences. This paper is situated within ongoing doctoral research in Education and represents a stage in its development. It presents a systematic literature review examining how autobiographical narratives have been used in adult education and the contributions they offer to the educational process. Guided by the PRISMA protocol, searches were conducted in the Web of Science, Scopus, and ERIC databases, focusing on empirical articles published between 2019 and 2023 in English, French, Spanish, and Portuguese. After applying the inclusion and exclusion criteria, 289 studies were selected. The findings indicate that autobiographical narratives are widely mobilised as a research source, serving as the primary empirical material under analysis, while also being produced through narrative-based methodological procedures. By contrast, their use as a structured pedagogical

practice remains weakly systematised, despite its association with processes of listening, reflexivity, and authorship. A gap was also identified in the incorporation of these narratives into structured pedagogical approaches, particularly in youth and adult education, as well as in the limited use of artistic and expressive resources in constructing narratives of experience. The findings highlight the need for stronger articulation between knowledge production and formative action.

#### Keywords

- adult education
- autobiographical narratives
- youth and adult education
- systematic literature review
- biographical-narrative research

### Narrativas autobiográficas na educação de adultos: usos investigativos e potencial formativo

No campo da educação de adultos, as narrativas autobiográficas consolidaram-se como meio de acesso às trajetórias formativas, aos processos identitários e às experiências educativas. Esta comunicação integra uma investigação de doutoramento em Educação em andamento e corresponde a uma de suas etapas. Trata-se de uma revisão sistemática de literatura que buscou compreender como as narrativas autobiográficas têm sido utilizadas na educação de adultos e quais contribuições oferecem ao processo educativo. Foi orientada pelo protocolo PRISMA, com buscas nas bases Web of Science, Scopus e ERIC, considerando artigos empíricos publicados entre 2019 e 2023, em quatro idiomas: inglês, francês, espanhol e português. Após aplicação dos critérios de inclusão e exclusão, constituiu-se um corpus de 289 estudos. Os resultados indicaram que as narrativas autobiográficas são amplamente mobilizadas como fonte de pesquisa, configurando-se como principal material empírico analisado, ao mesmo tempo em que são produzidas por meio de procedimentos metodológicos narrativos. Em contrapartida, sua presença como prática pedagógica estruturada permanece pouco sistematizada, ainda que associada a processos de escuta, reflexividade e autoria dos sujeitos. Evidenciou-se também uma lacuna quanto à incorporação dessas narrativas em propostas pedagógicas estruturadas, especialmente na educação de jovens e adultos, bem como a baixa incidência de estudos que mobilizam recursos artístico-expressivos na construção narrativa da experiência. Os achados apontam para a necessidade de maior articulação entre produção de conhecimento e ação formativa.

#### Palavras-chave

- educação de adultos
- narrativas autobiográficas
- educação de jovens e adultos
- revisão sistemática
- pesquisa biográfico-narrativa

### Transforming Teacher Identity through Rights-Based Education: An Action Research Study with Preschool Teacher Candidates

This study investigates how understandings of children's rights are formed and transformed through a rights-based educational intervention. The intervention was implemented within a semester-long course. It included activities such as case-based discussions on children's rights violations, reflective writing tasks, participatory classroom dialogues, and collaborative group work focusing on rights-based pedagogical practices. Adopting an action research design, the study engaged 50 first-year students enrolled in an early childhood education program at a public university. The research process was structured around iterative cycles of planning, action, observation, and reflection, consistent with action research principles. Data were collected before and after the intervention through written responses to semi-structured interview questions. The collected data were subjected to thematic analysis to examine shifts in participants' perspectives. Findings revealed that, before the intervention, participants predominantly conceptualized children's rights in terms of protection and the fulfillment of basic needs. Following the intervention, however, a noticeable shift was observed as participants began to develop more complex and participatory understandings of children's rights, emphasizing freedom of expression, agency, ethical responsibility, and collaboration with families. The findings also indicated a significant transformation in how teacher candidates positioned themselves professionally. Participants no longer defined teaching solely as classroom-based instruction; instead, they began to articulate their roles as advocates and protectors of children's rights. This transformation appeared to be facilitated through reflective engagement and opportunities to connect theoretical knowledge with pedagogical practice. By tracing this transformation, the study is thought to offer empirical evidence for the pedagogical significance of integrating children's rights into early childhood teacher education. It is further expected to contribute to the institutionalization of child-centered educational approaches by highlighting how rights-based perspectives can reshape both pedagogical practice and professional identity.

#### Keywords

- children's rights
- teacher education
- participation rights
- qualitative Research
- action research

**Conversation circles and teacher education: a territorially grounded methodology in communities of the Middle Rio Doce (MG)**

This proposal results from teacher education initiatives carried out through the network of the Rio Doce Basin School Program (PEBRID), which involved the development of experimental lesson plans, a specialization course, and a university extension project. These actions aimed to promote territorially grounded teacher education by integrating themes related to mining, dam collapse, and the revitalization of the Rio Doce Basin into the Pedagogical Projects of the public schools in municipalities affected by the Fundão dam collapse (2015). This study presents the results of five conversation circles conducted in school communities in Replendor (MG), focusing on dialogue and critical reflection. The objective was to encourage the exchange of experiences and the collective construction of knowledge, resulting in the development of five Experimental School Pedagogical Projects (PPEE). The methodology consisted

**Keywords**

- teacher education
- mining
- Rio Doce Basin
- territoriality
- environmental education

of organizing conversation circles in five education institutions, using guiding questions developed through attentive listening by a teacher and the analysis of each institution's pedagogical documents. The results demonstrate participant engagement, the expression of diverse perspectives, and the expansion of reflections on the topic, highlighting dialogue as a pedagogical tool. It is concluded that conversation circles represent a meaningful strategy in the educational process, contributing to critical development and the reframing of ways of life in these territories.

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**Rio Doce School Program (PEBRID) in Ipatinga-MG: Reparation Diagnosis and Confronting Pedagogical Silence Post-Fundão Disaster**

The Rio Doce School Program (PEBRID, 2021), a partnership between UFMG, UFOP, and FUNDEP, promotes the continuing education of educators in 36 municipalities affected by the Fundão dam collapse (2015). This study aims to analyze the performance of Working Group 3 (GT3) in Ipatinga-MG (2025-2026) and its contribution to integrating mining into daily school life, seeking to break the 'pedagogical silence' — the gap in critical debate regarding mineral extraction and its impacts. Methodologically, Critical Intervention Cartography was adopted, with the Ipatinga school system as the unit of analysis. Data collection included documentary analysis of financial contributions, participant observation in seminars, active listening of educators, analysis of thematic Experimental Pedagogical Projects (PPEs), and the application of questionnaires to managers and the municipal secretary of education. The results indicate fragmentation in reparation: the municipal network prioritized physical infrastructure (R\$ 7.4 million), while the state network prioritized human capital (72% adherence). PEBRID fostered the construction of 89 PPEs in 58 schools. GT3 synthesized these productions into the Municipal Experimental Pedagogical Project (PPEM) for implementation in the public network. It is concluded that effective reparation demands convergence between structural support and teaching knowledge. With the PPEM, GT3 enables the systematic inclusion of mining in daily school life, transforming the curriculum into a tool for critical reflection on its impacts.

**Keywords**

- education
- environmental disaster
- Fundão
- Pebrid
- Rio Doce

### Beyond Pedagogical Technique: Conversation Circles as a Device for Narrative Production in Post-Disaster School Contexts

Introduction: The collapse of the Fundão dam in 2015 produced lasting effects in the Rio Doce Basin that remain insufficiently addressed in school practices. In affected territories, the school emerges as a contested space shaped by disputes over memory and institutional constraints. This study examines how conversation circles operate as a device for narrative production and for confronting curricular absences in post-disaster contexts. Five conversation circles were conducted in public institutions in Resplendor, Minas Gerais, involving students, educators, and community members. Guiding questions were developed from institutional documents and prior listening to teachers. Data were produced through field diaries, focusing on interactions, silences, and modes of expression. The results indicate that the circles enabled the emergence of experiences absent from formal pedagogical discourse, revealing tensions

#### Keywords

- curricular absences
- post-disaster territories
- socio-environmental memory
- narrative device
- conflict and school

between lived realities and curricular prescriptions, as well as institutional limits in addressing territorial issues. As an outcome, five Experimental School Pedagogical Projects were developed, aiming to reconnect curriculum and local experience. It is concluded that conversation circles exceed a technical function and operate as a device for exposing curricular gaps, contributing to the reconfiguration of relations between school, territory, and memory in socio-environmental disaster contexts.

### Para Além da Técnica Pedagógica: Rodas de Conversa como Dispositivo de Produção de Narrativas em Contextos Escolares Pós-Desastre

Introdução: O rompimento da barragem de Fundão, em 2015, produziu efeitos duradouros na Bacia do Rio Doce, ainda pouco incorporados às práticas escolares. Em territórios atingidos, a escola se configura como espaço tensionado por disputas de memória e limites institucionais. Este estudo analisa como rodas de conversa podem operar como dispositivo de produção de narrativas e enfrentamento de ausências curriculares em contextos pós-desastre. Foram realizadas cinco rodas de conversa em instituições públicas de Resplendor (MG), envolvendo estudantes, profissionais da educação e comunidade. As questões orientadoras foram construídas a partir de documentos institucionais e escutas prévias com docentes. A produção de dados ocorreu por meio de diário de campo, com atenção às interações, silêncios e formas de expressão. Os resultados indicam que as rodas possibilitaram a emergência de experiências ausentes do discurso pedagógico formal, evidenciando tensões entre o vivido e o previsto nos currículos, além de limites institucionais na abordagem do território. Como desdobramento, foram elaborados cinco Projetos Pedagógicos Experimentais, orientados pela aproximação entre escola e experiência local. Conclui-se que as rodas de conversa ultrapassam a dimensão técnica e operam como dispositivo de explicitação de lacunas curriculares, contribuindo para a reconfiguração das relações entre escola, território e memória em contextos de desastre socioambiental.

#### Palavras-chave

- ausências curriculares
- territórios pós-desastre
- memória socioambiental
- dispositivo narrativo
- conflito e escola

### Local management of the Music Education curriculum – From policies to practices in the Autonomous Region of Madeira

The 1986 Basic Law of the Education System establishes that the curricular plans for Basic Education (BE) must be established at a national level, allowing for flexible content that integrates regional components. This case study aims to recount a trajectory of musical practices in the Autonomous Region of Madeira (ARM), highlighting educational policies and the regionalisation of the curriculum. Thus, considering a curricular understanding in terms of context (Schwab, 1989), the ARM — due to its insular nature and external influences, and given its contributions to the regionalisation of the curriculum — with its wealth of culture and intangible heritage, we seek to reflect, in particular, on the assertion of a regional identity and the preservation of heritage value as an inheritance. For this qualitative investigation, we analysed various documents (project guidelines and studies), reports of activities carried out, and opinion records from students and six music education teachers. Within the scope of the Regionalisation of the Music Education Curriculum project, in the second cycle of BE, a team was formed to create pedagogical resources made available to teachers, to conduct research on the ARM's Intangible Heritage, and to promote pedagogical conferences for students, addressing the challenge of regionalising the national curriculum (NC) by 30%. We consider the main impacts to be increased knowledge of and appreciation for Madeira musical heritage, positively influencing pedagogical practices. Also notable is the students' increased motivation to practise Madeiran traditional instruments.

#### Keywords

- local curriculum
- musical education
- ARM
- MECR

### Gestão local do currículo de Educação Musical – Das políticas às práticas, na Região Autónoma da Madeira

A Lei de Bases do Sistema Educativo de 1986 refere que os planos curriculares do Ensino Básico (EB) devem ser estabelecidos a nível nacional, prevendo a existência de conteúdos flexíveis, integrando componentes regionais. Este estudo de caso pretende narrar um percurso de práticas musicais na Região Autónoma da Madeira (RAM), evidenciando as políticas educativas e a regionalização do currículo. Assim, pensando-se num entendimento curricular em termos de contexto (Schwab, 1989), a RAM - pela sua dimensão insular e atendendo às influências externas, os contributos para a regionalização do currículo - face à sua riqueza em termos de cultura e património imaterial, queremos refletir, nomeadamente, sobre a afirmação de uma identidade regional e a preservação do valor patrimonial, enquanto herança. Para esta investigação, de natureza qualitativa, analisamos vários documentos (orientadores do projeto e estudos), relatórios das atividades desenvolvidas, registos de opinião dos alunos e de 6 professores de educação musical. No âmbito do projeto de Regionalização do Currículo de Educação Musical, no 2.º ciclo do EB, é constituída uma equipa para criar recursos pedagógicos disponibilizados aos professores, a realizar pesquisas sobre o Património Imaterial da RAM e a promover conferências pedagógicas junto dos alunos, enformando o desafio de regionalizar o CN em 30%. Consideramos como impactos principais, um maior conhecimento e valorização do património musical madeirense, influenciando positivamente as práticas pedagógicas. Destaca-se, também, a motivação dos alunos para prática dos instrumentos tradicionais madeirenses.

#### Palavras-chave

- currículo local
- educação musical
- RAM
- RCEM

### Pedagogical Innovation in IPL: Insights from a Podcast-Based Study

The Inov@U (Lisbon Centre of Excellence for Pedagogical Innovation) launched the podcast series “5 minutes of pedagogy with...”, a weekly programme of approximately five minutes, available on Spotify. Each episode features teachers, students, or staff from partner institutions, including the University of Lisbon, the Polytechnic University of Lisbon (IPL), and the Lisbon School of Nursing (ESEL). The series aims to stimulate reflection and the exchange of ideas about pedagogical innovation in higher education.

This study aims to identify and systematise pedagogical good practices within the context of IPL, based on insights shared by teachers across 18 podcast episodes, broadcasted between June 2025 and May 2026.

The methodology involved the full transcription of the episodes, followed by a systematic content analysis to identify recurring themes, pedagogical strategies, and innovative practices with potential to enhance teaching and learning.

The study shows that the podcast constitutes more than a dissemination tool, operating as a space for pedagogical visibility, professional recognition, and collective knowledge-building around teaching in higher education. The

identified practices provide a resource for colleagues interested in pedagogical innovation, offering inspiration and concrete examples to support new teaching approaches.

#### Keywords

- higher education
- innovation
- good practices
- podcast
- 5th keyword

In this sense, the study contributes to the creation of an Observatory of Good Practices at IPL, by promoting reflection, collaboration and debate, and by reinforcing the idea that good teaching practices should not remain isolated or invisible, but rather be documented, discussed, and mobilised as strategic resources for the continuous improvement of higher education pedagogy.

### Educating for peace through children’s literature

This study is guided by the central aim of understanding how Education for Peace can be seen as a relevant topic within the training of future Primary Education teachers, with a focus on children’s literature. To achieve this goal, two picturebooks were selected: I am very busy, by Oliver Jeffers (2026) and A Friend as a Gift, by Victor Santos (2026). These works were chosen based on the following criteria: i) the interconnection of the themes addressed in the narratives; ii) the potential of the illustrations to aid in understanding the concept of peace. The following specific objectives were outlined: i) to identify thematic nuclei in the selected works that promote Education for Peace; ii) to build reading pathways, centered on the two works, to integrate Literary Education with Education for Peace in Primary Education. Methodologically, a qualitative approach was adopted, based on the two narratives. First, the works were read repeatedly so that themes and subthemes relevant to the pursuit of the established objectives could emerge, adapting Bardin’s (2013) principles of content analysis. Two criteria for analysis were established a priori: i) the identification of the developments and redefinitions of the concept of Peace; ii) the articulation of paratexts with the cultivation of empathy. Results showed a strong connection between the themes identified (empathy, respect, cultural awareness) and Education for Peace. It is concluded that both works possess characteristics that highly enhance understanding of the implications of Education for Peace. In this regard, their integration into the syllabus of curricular units for future teachers of Primary Education could be an asset.

#### Keywords

- didactics of children’s literature
- education for peace
- picturebook

### Educar para a paz com a literatura para a infância

Este estudo norteia-se pelo objetivo central de compreender de que modo a Educação para a Paz pode instituir-se como tema atual, no âmbito da formação de futuros professores do 1.º Ciclo do Ensino Básico, tendo como fulcro a literatura para a infância. Para dar cumprimento a este objetivo, foram selecionados dois livros-álbum: Hoje não posso, de Oliver Jeffers (2026) e Um amigo de presente, de Victor Santos (2026). Estas obras foram escolhidas com base nos seguintes critérios: i) a articulação dos temas abordados nas narrativas; ii) o potencial das ilustrações para a compreensão do conceito de Paz. Traçaram-se os seguintes objetivos específicos: i) identificar núcleos temáticos que potenciem a Educação para a paz; ii) construir itinerários de leitura, de modo a articular a Educação literária com a Educação para a Paz, no 1.º Ciclo do Ensino Básico. Metodologicamente, realizou-se uma abordagem de natureza qualitativa, com base nas duas narrativas. Procedeu-se, em primeiro lugar, à realização de leituras sucessivas das obras, de modo que pudessem emergir temas e subtemas com relevo para a prossecução dos objetivos traçados, adaptando-se os princípios de análise de conteúdo de Bardin (2013). Foram criados, a priori, dois critérios de análise: i) a identificação dos desdobramentos e redefinições do conceito de Paz; ii) articulação dos paratextos com o cultivo

#### Palavras-chave

- didática da literatura para a infância
- educação para a paz
- livro-álbum

da empatia. Os resultados revelaram uma forte ligação entre os temas identificados (empatia, respeito, consciência cultural) e a Educação para a Paz. Nesse sentido, a sua integração no programa das unidades curriculares destinadas a futuros professores do 1.º Ciclo do Ensino Básico poderia constituir uma mais-valia.

### DUATEC-Labs in Higher Education: a pilot study

Introduction: Universal Design for Learning (UDL 3.0) provides a key framework for ensuring accessibility and equity in educational processes, promoting multiple forms of representation, action, expression and engagement. At the same time, tools such as educational robotics, virtual reality (VR) and generative artificial intelligence offer new opportunities to enhance teaching. However, their effective implementation from an inclusive perspective remains a challenge.

Objectives: We aim to analyse the impact of a training intervention based on UDL 3.0 aimed at higher education students (future teachers) regarding the use of emerging technologies — robotics, virtual reality and generative artificial intelligence — as accessible and inclusive educational resources.

Methodology: A pilot study with a quantitative approach was designed, which involved 67 Primary Education students from the University of Granada. The intervention consisted of practical workshops organised under the DUATEC-labs banner, as part of the Attention to Diversity subject. The validated TPACK and SACIE questionnaires were used to collect data at the start and end of the intervention.

#### Keywords

- UDL 3.0
- emerging technologies
- teaching training
- higher Education
- educational labs

Results: The results showed a significant improvement in teachers' self-assessed digital competence in relation to inclusion after the intervention, according to the questionnaires used. Similarly, the pre- and post-scores revealed that participants were better able to design multi-level educational activities according to UDL 3.0.

Conclusion: The consideration of UDL 3.0 in the use of emerging technologies as accessible educational resources has a positive impact on the training of future teachers, which encourages the development of more inclusive teaching skills.

### Os laboratórios DUATEC no ensino superior: um estudo-piloto

Introdução: O Design Universal para a Aprendizagem (UDL 3.0) constitui um quadro fundamental para garantir a acessibilidade e a equidade nos processos educativos, promovendo múltiplas formas de representação, ação, expressão e participação. Ao mesmo tempo, ferramentas como a robótica educativa, a realidade virtual (RV) e a inteligência artificial generativa oferecem novas oportunidades para melhorar o ensino. No entanto, a sua implementação eficaz numa perspetiva inclusiva continua a ser um desafio.

Objetivos: O nosso objetivo é analisar o impacto de uma intervenção formativa baseada na UDL 3.0, dirigida a estudantes do ensino superior (futuros professores), no que diz respeito à utilização de tecnologias emergentes — robótica, realidade virtual e inteligência artificial generativa — como recursos educativos acessíveis e inclusivos.

Metodologia: Foi concebido um estudo piloto com uma abordagem quantitativa, que envolveu 67 estudantes de Ensino Básico da Universidade de Granada. A intervenção consistiu em workshops práticos organizados sob a égide dos laboratórios DUATEC, no âmbito da disciplina «Atenção à Diversidade».

Resultados: Os resultados revelaram uma melhoria significativa na autoavaliação da competência digital dos professores no que diz respeito à inclusão após a intervenção, de acordo com os questionários utilizados. Da mesma forma, as pontuações pré e pós-intervenção revelaram que os participantes estavam mais aptos a conceber atividades educativas de vários níveis, de acordo com o UDL 3.0.

Conclusão: A integração do UDL 3.0 na utilização de tecnologias emergentes como recursos educativos acessíveis tem um impacto positivo na formação dos futuros professores, o que incentiva competências mais inclusivas.

#### Palavras-chave

- UDL 3.0
- tecnologias emergentes
- formação de professores
- ensino superior
- laboratórios educativos

### Reflecting on the establishment of Physical Education Department in Japanese High Schools from the 1960s to the 1970s

Background: In Japan, school sports have traditionally relied on physical education and extracurricular club activities (bukatsu). Specialized sport-focused high schools, catering to gifted athletes seeking university admission, proliferated rapidly from 1 in 1960 to 34 in 1978.

Objective: This study aims to examine the historical development and curriculum alignment of these specialized physical education departments, evaluating their overall impact on students' career path selection and development.

Methods: A historical document analysis was conducted on all 34 schools established by 1978. The analysis evaluated institutional histories, establishment backgrounds, and the alignment of curriculum content with stated pedagogical philosophies and outcomes.

Results: Preliminary results indicate that while these programs provided specialized practical training, the curricula heavily prioritized immediate athletic achievements in bukatsu over comprehensive skill development. This intense focus on sport performance often led to imbalances in students' academic progression and holistic learning.

Conclusion: The emphasis on competitive success inadvertently undermined broader career-focused outcomes in sport science, education, and other fields. This study highlights the necessity of critically reassessing sport-focused curricula to better support long-term career transitions for student-athletes.

#### Keywords

- youth sport
- high school athletic program
- education system

**Exploratory study of how two learning models influence shooting skill acquisition in young football players**

Introduction: Motor learning research often contrasts repetition based practice with approaches that introduce structured variability, particularly in football shooting (Gaspar et al., 2019; Schöllhorn et al., 2022). Understanding how different practice models affect short term performance is relevant for youth training.

Objective: This study compared the effects of differential learning (DL) and variable practice (VP) on shooting performance in trained U 18 male players. Methods: Six athletes, divided into two groups, completed a baseline assessment using the Alves Shooting Test (Alves, 2015). Over five weeks, each group performed one weekly session. The DL group shot from a constant location while varying coordination patterns without feedback, following principles of movement fluctuation (Schöllhorn et al., 2022). The VP group performed ten shots per session from positions that changed in distance and angle. Performance was reassessed after the final session and one week later. Results: Only

**Keywords**

- motor skills
- differential learning
- practice conditions
- individualized training
- motor adaptation

the DL group showed significant improvement over time ( $p = 0.018$ ). The VP group displayed no meaningful changes ( $p > .05$ ). No group  $\times$  time interaction was found, indicating similar overall progression between models. Conclusion: Learning outcomes depend strongly on context, and generalisations should be made with prudence (Schöllhorn et al., 2022). The results suggest that DL may offer advantages in shooting tasks when adaptable performance is desired. However, the small sample and absence of transfer measures limit interpretation. Larger studies are needed to clarify when each approach is most effective.

**Estudo exploratório sobre como dois modelos de aprendizagem influenciam a aquisição da habilidade de remate em jovens jogadores de futebol**

Introdução: A investigação em aprendizagem motora tem contrastado métodos baseados na repetição com abordagens que introduzem variabilidade estruturada, especialmente no remate no futebol (Gaspar et al., 2019; Schöllhorn et al., 2022). Compreender como diferentes modelos de prática influenciam o desempenho a curto prazo é relevante no treino de jovens atletas. Objetivo: Comparar os efeitos da aprendizagem diferencial (DL) e da prática variável (VP) no desempenho de remate em jogadores masculinos Sub 18 treinados. Métodos: Seis atletas, divididos em dois grupos, realizaram uma avaliação inicial através do Teste de Remate de Alves (Alves, 2015). Durante cinco semanas, cada grupo participou numa sessão semanal. O grupo DL rematou sempre do mesmo local, variando intencionalmente os padrões de coordenação e sem feedback, seguindo princípios de flutuação motora (Schöllhorn et al., 2022). O grupo VP realizou dez remates por sessão a partir de posições que variavam em distância e ângulo. A performance foi reavaliada após a última sessão e uma semana depois. Resultados: Apenas o grupo DL apresentou melhoria significativa ao longo do tempo ( $p = 0.018$ ). O grupo VP não mostrou alterações relevantes ( $p > .05$ ). Não foi identificada interação grupo  $\times$  tempo, indicando evolução semelhante entre modelos. Conclusão: Os resultados reforçam que os efeitos da prática dependem do contexto, exigindo prudência na generalização (Schöllhorn et al., 2022). A DL poderá oferecer vantagens quando se pretende promover desempenho adaptável. Contudo, a reduzida dimensão amostral e a ausência de medidas de transferência limitam a interpretação. Estudos com amostras maiores são necessários para clarificar quando cada abordagem é mais eficaz.

**Palavras-chave**

- competências motoras
- aprendizagem diferencial
- condições de prática
- treino individualizado
- adaptação motora

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**Developing Leadership Competences for High-Performance Management Education: Contemporary Perspectives and Practices**

In the context of rapid transformations in the education system, driven by digitalisation, globalisation and socio-economic dynamics, high-performance management is increasingly associated with the development of leadership competences among educational actors. This study aims to analyse the relationship between leadership competences and managerial effectiveness in educational institutions, highlighting the role of the educational leader in facilitating change and promoting an organisational culture oriented towards performance and innovation. The research is based on a qualitative methodology, combining a systematic review of the specialised literature with a comparative analysis of relevant studies in the field of educational leadership. Key theoretical frameworks include transformational leadership (Bass & Avolio, 1994) distributed leadership (Spillane, 2006) and emotional intelligence in leadership (Goleman, 1995), alongside recent contributions on organisational effectiveness and change management in education (Fullan, 2014). The findings indicate that the systematic development of leadership competences contributes to improving the quality of the educational process, increasing staff engagement and enhancing the organisational climate. Furthermore, the study underlines the need to integrate leadership training programmes into the continuous professional development of both managers and teachers, as a key prerequisite for sustainable institutional performance. In conclusion, the paper argues that high-performance educational management cannot be achieved in the absence of well-developed leadership competences adapted to the current educational context (Bush, 2011; Leithwood & Riehl, 2005).

**Keywords**

- leadership competences
- educational management
- organisational performance
- transformational leadership
- professional development



Health Education  
and Quality of  
Life

Educação para  
a Saúde e  
Qualidade de Vida

## Health Education and Quality of Life

The Health Education and Quality of Life research line addresses contemporary challenges in education, health, and social inclusion through the study of the individual, social, and environmental determinants of health, well-being, lifestyles, and active participation across diverse life contexts. By advancing scientific knowledge and promoting evidence-informed approaches, this research line contributes to the development of effective strategies for health promotion and quality of life enhancement.

The abstracts presented in this book reflect the broad thematic scope of the research line, encompassing areas such as physical activity and exercise, sedentary behaviour, mental health and self-regulation, addictive behaviours, active ageing, inclusive and adapted sport, rehabilitation, and the promotion of functional capacity. Together, these contributions provide valuable insights into the factors that shape health, well-being, and quality of life across the lifespan.

In a context of profound social, demographic, and cultural change, health and well-being have become central dimensions in the development of more inclusive, participatory, and sustainable societies.

The research and contributions presented within this line provide valuable evidence for understanding emerging challenges, informing policy and practice, and supporting the design of innovative interventions aimed at improving population health, well-being, and quality of life.

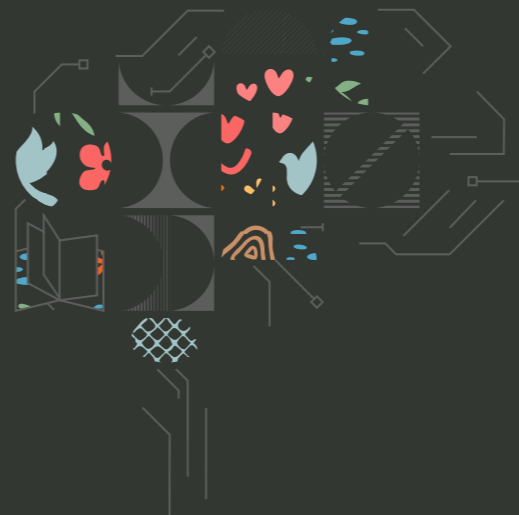
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Research Line Health Education  
and Quality of Life





## Summary | Sumário

- 83 Health Education and Quality of Life
- 88 Substance and non-substance-related addictive behaviors among Portuguese children and adolescents: self-perceptions and those of guardians  
Comportamentos aditivos com e sem substâncias em crianças e jovens portugueses: auto percepções e de encarregados de educação
- 89 Physical exercise in old age: Perceptions about its practice in gyms and fitness centers  
Exercício físico na terceira idade: Representações sobre a prática em ginásios e academias
- 90 Differences in premenstrual symptom categories according to physical activity levels in Portuguese female university students: an exploratory study  
Diferenças nas categorias de sintomas pré-menstruais segundo os níveis de atividade física em estudantes universitárias portuguesas: um estudo exploratório
- 91 Barriers to the Promotion of Adapted Sport: A Study with Coaches from the Viseu Region  
Barreiras à promoção do desporto adaptado: um estudo com treinadores da região de Viseu
- 92 Community engagement and intercultural dialogue: the link between the Science Fair (Escola-Campo) and the Feira das Marias (Quilombo Candeal II)  
Envolvimento comunitário e diálogo intercultural: a ligação entre a Feira da Ciência (Escola-Campo) e a Feira das Marias (Quilombo Candeal II)
- 93 Hypnosis as a Psychoeducational Self-Regulation Strategy  
A Proposed Applied Model for Promoting Health and Quality of Life in Sport-Educational Contexts  
Hipnose como Estratégia Psicoeducativa de Autorregulação  
Proposta de Modelo Aplicado para a Promoção da Saúde e Qualidade de Vida em Contexto Desportivo-Educativo
- 94 E-sports, Physical Activity and Leisure: motivations and benefits of a rising modality  
E-sports, Atividade Física e Lazer: motivações e benefícios de uma modalidade em ascensão
- 95 Impact of Sedentary Behavior on Different Domains of Premenstrual Symptoms in Portuguese Female University Students: an exploratory study  
Impacto do Comportamento Sedentário nas Diferentes Dimensões dos Sintomas Pré-Menstruais em Estudantes Universitárias Portuguesas: um Estudo Exploratório



96 **Effectiveness of Community-Based Rehabilitation Programs for People with Knee Osteoarthritis: Protocol for a Systematic Review**  
Efetividade de programas de reabilitação para pessoas com osteoartrose do joelho em contexto comunitário: Protocolo de Revisão Sistemática da Literatura

97 **Sex differences in the physical fitness zones of higher education students: an analysis based on the FITescola test battery**  
Diferenças segundo o sexo nas zonas de condição física de estudantes do ensino superior: uma análise com base na bateria de testes FITescola

#### authors | autores

*Américo Madeira* 93  
*Ana Maria Pinho* 96  
*Antonino Pereira* 89, 91, 94  
*Artur Marques* 97  
*Carlos Vasconcelos* 90, 95  
*Cátia Magalhães* 83  
*David Almeida* 94  
*Emília Martins* 88  
*Francisca das Virgens Fonseca* 92  
*Francisco Mendes* 88  
*Geilsa Costa Santos* 92  
*Isabel Oliveira* 96  
*João Carmo* 94  
*João Lourinho* 94  
*Jorge Arede* 97  
*Juvenal Janaino Lima de Santana* 92  
*Lúcia Ferreira* 88  
*Lúcia Sofia Oliveira* 89  
*Maria Costa* 97  
*Mariana Gonzalez* 97  
*Mariana Lopes* 90, 95  
*Patrícia Monteiro* 88  
*Paula Cristina Pais Martinho* 91  
*Ricardo Ferreira* 96  
*Rodrigo de Queiroz Oliveira* 92  
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**Substance and non-substance-related addictive behaviors among Portuguese children and adolescents: self-perceptions and those of guardians**

The increase in addictive behaviors (AB) among young people is a public health problem with alarming consequences, involving both substance and non-substance-related addictions, many of which are just a click away. It is a challenge that requires everyone’s commitment and demands a comprehensive understanding. We explored levels of AB and knowledge about associated problems among children and adolescents in inland and central Portugal schools, as perceived by students themselves (Stds) and their guardians (Gs), using a semi-structured questionnaire with 1,405 participants (821 Stds and 584 Gs). The Stds age was 14.17±2.72; 53.4% male, at elementary, vocational, and secondary schools. Gs perceived the Stds to spend less time ( $p \leq .001$ ) on social media and gambling than themselves reported. The Gs educational level correlated negatively with the Stds’ consumption and AB (alcohol, tobacco, energy drinks, sports betting), but positively with the Stds’ time spent on social media. There was greater male consumption of alcoholic and energy drinks, roll-your-own tobacco, dietary supplements, and psychoactive substances, as well as higher frequency of video games (including for money), sports betting (online and offline), and downloading. Girls

**Keywords**

- haddictive behaviors
- perceptions
- children/youth
- guardians

consumed more sedatives/antidepressants and had better knowledge of alcohol and tobacco associated problems. There were no gender differences in social media spent time. Older Stds reported higher levels of almost all substance and non-substance-related AB, despite greater knowledge of associated problems. The subgroups’ results emphasize the importance of intervening with parents, in addition to adolescents, as well as the need for tailored intervention plans.

**Comportamentos aditivos com e sem substâncias em crianças e jovens portugueses: auto percepções e de encarregados de educação**

O aumento dos comportamentos aditivos (CA), nos jovens, é um problema de saúde pública com repercussões preocupantes, envolvendo dependências com e sem substâncias, muitas à distância de um clique. É um desafio que exige o compromisso de todos, reclamando conhecimento profundo da problemática. Exploraram-se níveis de CA e de conhecimento sobre problemas associados, em crianças/jovens do interior/centro de Portugal, perccionados pelos próprios (Ed) e por encarregados de educação (EE), através de um questionário semiestruturado, com 1405 participantes (821 Ed e 584 EE). A idade dos Ed é 14.17±2.72, 53.4% masculinos, de escolas básicas, profissionais e secundárias. Os EE perccionam menos tempo ( $p \leq .001$ ) dos Ed nas redes sociais e jogos de apostas do que os próprios. A escolaridade dos EE correlaciona-se negativamente com consumos e CA dos Ed (álcool, tabaco, bebidas energéticas, apostas desportivas), mas positivamente com o tempo dos Ed nas redes sociais. Há maior consumo masculino de bebidas alcoólicas e energéticas, tabaco de enrolar, suplementos alimentares, substâncias psicoativas, bem como frequência de jogos eletrónicos (incluindo a dinheiro), apostas desportivas (online e offline) e downloading. As jovens consomem mais calmantes/antidepressivos e têm melhor conhecimento sobre problemas associados ao álcool e tabaco. Não há diferenças de género no tempo nas redes

sociais. Foram reportados, pelos mais velhos, níveis mais elevados na quase totalidade dos CA com e sem substâncias, apesar de maior conhecimento sobre problemas associados. Os resultados nos subgrupos sustentam a importância da intervenção junto dos EE, para além dos jovens, bem como para planos de intervenção diferenciados.

**Palavras-chave**

- comportamentos aditivos
- percepções
- crianças/jovens
- encarregados de educação

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**Physical exercise in old age: Perceptions about its practice in gyms and fitness centers**

Contemporary demographic aging reiterates the urgency of strategies that promote active lifestyles, with physical exercise being consensually recognized as a key pillar in preserving health, autonomy, and quality of life in old age. In this context, gyms and fitness centers emerge as privileged settings for structured physical activity. This study aimed to analyze the perceptions of elderly individuals regarding exercise in these spaces, simultaneously identifying the factors that influence adherence and loyalty to the activity. Methodologically, a qualitative approach was chosen, using semi-structured interviews with a sample of ten individuals (aged between 65 and 81 years) who practiced in gyms and fitness centers in the municipality of Viseu. The documentary corpus was subjected to content analysis (Bardin, 2008). The results suggest that the main motivations for exercise lie in health promotion, maintenance of physical fitness, and the perception of biopsychosocial well-being. Similarly, the relevance of the social dimension and the relational environment of the gym is highlighted as crucial elements in maintaining sports commitment. Additionally, gender disparities were observed in activity preferences, with the male audience favoring strength training (weightlifting), while the female audience showed a greater preference for aerobic activities, namely water aerobics. It is concluded that strengthening active aging in this population requires greater awareness of the benefits of exercise, along with improved accessibility.

**Keywords**

- elderly
- active ageing
- physical exercise
- gym

**Exercício físico na terceira idade: Representações sobre a prática em ginásios e academias**

O envelhecimento demográfico contemporâneo reitera a premência de estratégias que promovam estilos de vida ativos, sendo o exercício físico consensualmente reconhecido como um pilar determinante na preservação da saúde, autonomia e qualidade de vida na terceira idade. Neste âmbito, os ginásios e academias emergem como contextos privilegiados para a prática de atividade física estruturada. O presente estudo teve como objetivo analisar as representações de indivíduos idosos sobre a prática de exercício nestes espaços, identificando simultaneamente os fatores que influenciam a adesão e a fidelização à modalidade. Do ponto de vista metodológico, optou-se por uma abordagem qualitativa, recorrendo à realização de entrevistas semiestruturadas a uma amostra de dez indivíduos (com idades compreendidas entre os 65 e os 81 anos), praticantes em ginásios e academias do concelho de Viseu. O corpus documental foi submetido à técnica de análise de conteúdo (Bardin, 2008). Os resultados obtidos sugerem que as principais motivações para a prática residem na promoção da saúde, na manutenção da condição física e na percepção de bem-estar biopsicossocial. Destaca-se, de igual modo, a relevância da dimensão social e do ambiente

**Palavras-chave**

- idoso
- envelhecimento ativo
- exercício físico
- ginásio

relacional do ginásio como elementos fulcrais na manutenção do compromisso desportivo. Adicionalmente, verificaram-se disparidades de sexo nas preferências pelas atividades, com o público masculino a privilegiar o treino de força (musculação), enquanto o feminino demonstra maior predileção por atividades aeróbias, nomeadamente a hidroginástica. Conclui-se que o reforço do envelhecimento ativo nesta população requer uma maior sensibilização para os benefícios do exercício, a par da melhoria das acessibilidades.

### Differences in premenstrual symptom categories according to physical activity levels in Portuguese female university students: an exploratory study

Premenstrual symptoms, including mood, behavioral, pain, and physical, affect many women of reproductive age and can impact daily functioning. Physical activity has been suggested to influence symptom severity, but evidence regarding its influence with specific symptom categories remains limited.

The objective of this study is to assess differences in premenstrual symptom categories according to levels of physical activity.

An analytical cross-sectional study was conducted involving 30 female students (22.0 ± 5.6 years) at a Portuguese Polytechnic Institute. Premenstrual symptoms were assessed using the 17-item Daily Symptom Report, with items grouped into four categories: mood (6 items), behavioral (6 items), pain (3 items), and physical symptoms (2 items). Symptoms were rated on a 5-point scale (0–4) from absent to very severe, based on the impact on routine activities. Physical activity was measured with the short-form IPAQ, with participants classified as having low, moderate, or high activity levels according to the official protocol. Due to non-normal data distribution, the Kruskal–Wallis test was conducted. The scores of the four categories of premenstrual symptoms did not differ significantly among participants with low (n=11), moderate (n = 11), or high physical activity levels (n=8): mood (H = 1.56; p = 0.46), behavioral (H = 0.03; p = 0.99), pain (H = 0.76, p = 0.68), or physical symptoms (H = 1.42; p = 0.49).

#### Keywords

- premenstrual symptoms categories
- physical activity
- university students
- exploratory study

In this group of participants, no significant differences were observed in premenstrual symptom categories according to physical activity levels. Future studies including larger samples are necessary to draw more definitive conclusions.

### Diferenças nas categorias de sintomas pré-menstruais segundo os níveis de atividade física em estudantes universitárias portuguesas: um estudo exploratório

Os sintomas pré-menstruais, incluindo alterações de humor, comportamentais, dor e físicos, afetam muitas mulheres em idade reprodutiva e podem influenciar o seu dia-a-dia. A atividade física é um fator que pode influenciar a gravidade dos sintomas, mas as evidências relativamente ao seu impacto em categorias específicas de sintomas ainda são limitadas.

O objetivo foi avaliar diferenças nas categorias de sintomas pré-menstruais de acordo com os níveis de atividade física.

Foi realizado um estudo analítico transversal envolvendo 30 estudantes do sexo feminino (22,0 ± 5,6 anos) de um Instituto Politécnico português. Os sintomas pré-menstruais foram avaliados utilizando o Daily Symptom Report de 17 itens, agrupados em quatro categorias: humor (6 itens), comportamentais (6 itens), dor (3 itens) e sintomas físicos (2 itens). Os sintomas foram classificados numa escala de 5 pontos (0–4), de ausente a muito intenso, com base no impacto nas atividades do dia-a-dia. A atividade física foi avaliada através da versão curta do IPAQ, classificando-se as participantes em níveis baixos, moderados ou elevados segundo o protocolo oficial.

As pontuações das quatro categorias dos sintomas pré-menstruais não diferiram significativamente entre as participantes com níveis baixos (n = 11), moderados (n = 11) ou elevados (n = 8) de atividade física: humor (H = 1,56; p = 0,46), comportamentais (H = 0,03; p = 0,99), dor (H = 0,76; p = 0,68) ou sintomas físicos (H = 1,42; p = 0,49).

Neste grupo de participantes, não foram observadas diferenças significativas nas categorias de sintomas pré-menstruais de acordo com os níveis de atividade física. Estudos futuros, incluindo amostras maiores, são necessários para se obter conclusões mais definitivas.

#### Palavras-chave

- categorias de sintomas pré-menstruais
- atividade física
- estudantes universitárias
- estudo exploratório

### Barriers to the Promotion of Adapted Sport: A Study with Coaches from the Viseu Region

Introduction: Sport is a fundamental right, enshrined in Article 30 of the UN Convention on the Rights of Persons with Disabilities and reinforced by the WHO Global Action Plan 2018–2030. Despite this, recent research (Elípe-Lorenzo et al., 2025) indicates that ableism and the lack of specialized training continue to limit sports participation. Moreover, Portugal shows low participation rates in this population, making it crucial to identify factors that hinder regular physical activity.

Objectives: This study aimed to identify the main barriers to the promotion and development of federated adapted sport in the Viseu region from the perspective of coaches.

Methodology: This was a qualitative study using semi-structured interviews with a sample of 10 coaches of federated athletes in the region. Data were analyzed using the content analysis technique (Bardin, 2008).

Results: The results highlight, at the national level, the main barriers as lack of financial support, insufficient publicity, and limited institutional backing. Specifically in the Viseu region, family prejudice, lack of adequate sports facilities, and limited support from local authorities stand out. In the training context, coaches point to a lack of specialized training and insufficient human and material resources.

Conclusions: This study reinforces the need for integrated public policies, increased financial investment, and continuous professional development for coaches. It suggests partnerships between local authorities and clubs to create specific programs and awareness campaigns in society and schools, aiming to eliminate stigmas and promote active lifestyles for people with disabilities.

#### Keywords

- adapted sport
- people with disabilities
- barriers to practice
- coaches
- Viseu region

### Barreiras à promoção do desporto adaptado: um estudo com treinadores da região de Viseu

Introdução: O desporto é um direito fundamental, consagrado no Artigo 30.º da Convenção da ONU sobre os Direitos das Pessoas com Deficiência e reforçado pelo Plano de Ação Global da OMS 2018-2030. Apesar disso, investigações recentes (Elípe-lorenzo et al, 2025) indicam que o capacitismo e a falta de formação especializada continuam a limitar a participação desportiva. Por outro lado, Portugal regista taxas de participação reduzidas nesta população, tornando-se crucial identificar os fatores que impedem a prática regular de atividade física.

Objetivos: O estudo visou identificar as principais barreiras à promoção e desenvolvimento do desporto adaptado federado na região de Viseu, sob a perspetiva de treinadores.

Metodologia: Tratou-se de uma investigação qualitativa que utilizou entrevistas semiestruturadas com uma amostra de 10 treinadores de atletas federados da região. Os dados foram tratados através da técnica de análise de conteúdo (Bardin, 2008).

Resultados: Os resultados destacam como barreiras principais, a nível nacional, a falta de apoio financeiro, de divulgação e de apoio institucional. Especificamente na região de Viseu, sobressaem o preconceito familiar, a

carência de instalações desportivas adequadas e a falta de apoio das autarquias. No contexto do treino, os técnicos apontam a falta de formação especializada e de recursos humanos e materiais.

#### Palavras-chave

- desporto adaptado
- pessoas com deficiência
- barreiras à prática
- treinadores
- região de Viseu

Conclusões: Este estudo reforça a necessidade de políticas públicas integradas, maior investimento financeiro e formação contínua de técnicos. Sugere parcerias entre autarquias e clubes para criar programas específicos e ações de sensibilização na sociedade e escolas, visando eliminar estigmas e promover estilos de vida ativos para as pessoas com deficiência.

**Community engagement and intercultural dialogue: the link between the Science Fair (Escola-Campo) and the Feira das Marias (Quilombo Candeal II)**

The 2nd Science and Entrepreneurship Fair organised by the State Centre for Professional Health Education in the Bahia Centre is designed as an educational initiative aimed at fostering intercultural dialogue within the context of secondary-level vocational and technical education in the municipality of Feira de Santana, Bahia, Brazil. The initiative is based on the approach of intercultural science education and the National Curriculum Guidelines for the Education of Ethnic-Racial Relations. The event sought to promote the integration of academic, school and traditional knowledge, aiming to raise awareness within the school community about healthy eating and to encourage practices rooted in the popular and solidarity economy. The proposal incorporated the Quilombismo perspective as a theoretical and practical foundation for the development of decolonial Afro-entrepreneurship. The methodological strategy was consolidated through a partnership with the Feira das Marias, a collective formed by women from Quilombo Candeal II, establishing cooperation between the school and this remnant quilombo community. As a result, the market provided a platform for Afro-entrepreneurship and the local production of quilombo women. The initiative enabled the school community to engage with production and marketing systems based on cultural identity and food sustainability.

**Keywords**  
→ intercultural dialogue  
→ decolonial Afro-entrepreneurship  
→ teaching practice

The link between the Science Fair and the Feira das Marias demonstrates that science education, when combined with intercultural dialogue and community engagement, helps to expand the training of healthcare professionals, strengthen the solidarity economy and put into practice guidelines for education on ethnic and racial relations.

**Envolvimento comunitário e diálogo intercultural: a ligação entre a Feira da Ciência (Escola-Campo) e a Feira das Marias (Quilombo Candeal II)**

A 2ª Feira de Ciências e Empreendedorismo do Centro Estadual de Educação Profissional em Saúde do Centro Baiano configura-se como uma intervenção pedagógica voltada para o fomento do diálogo intercultural no contexto da Educação Profissional e Tecnológica de Nível Médio, no município de Feira de Santana, Bahia, Brasil. A iniciativa fundamenta-se na abordagem da educação científica intercultural e nas Diretrizes Curriculares Nacionais para a Educação das Relações Étnico-Raciais. O evento buscou promover a integração entre os saberes acadêmico, escolar e tradicional, visando sensibilizar a comunidade escolar para o consumo de alimentos saudáveis e incentivar práticas fundamentadas na economia popular e solidária. A proposta incorporou a perspectiva do Quilombismo como base teórico-prática para o desenvolvimento do afroempreendedorismo decolonial. A estratégia metodológica consolidou-se por meio de uma parceria com a Feira das Marias, um coletivo formado por mulheres do Quilombo Candeal II, estabelecendo uma cooperação entre a escola e essa comunidade remanescente de quilombo. Como resultado, a feira proporcionou um espaço de visibilidade para o afroempreendedorismo e para a produção local das mulheres quilombolas. A intervenção permitiu que a comunidade escolar entrasse em contato com sistemas de produção e comercialização baseados na identidade cultural e na sustentabilidade alimentar. A articulação entre a Feira de Ciências e a Feira das Marias demonstra que a educação científica, quando aliada ao diálogo intercultural e ao engajamento comunitário, contribui para ampliar a formação de técnicos em saúde, fortalecer a economia solidária e aplicar, na prática, as diretrizes para a educação das relações étnico-raciais.

**Palavras-chave**  
→ diálogo intercultural  
→ Afroempreendedorismo decolonial  
→ prática pedagógica

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**Hypnosis as a Psychoeducational Self-Regulation Strategy: A Proposed Applied Model for Promoting Health and Quality of Life in Sport-Educational Contexts**

The promotion of psychological health in sport-educational contexts has gained increasing relevance, particularly in light of the high levels of competitive anxiety, academic stress, and emotional self-regulation difficulties reported by student-athletes. Despite the wide range of interventions aimed at performance optimization, the structured integration of psychophysiological regulation strategies within a pedagogical and preventive framework remains limited. Hypnosis, conceptualized as a process of attentional focusing and modulation of subjective experience through structured suggestion, has demonstrated scientific evidence in areas such as arousal regulation, attentional control, and emotional management. However, its application as an integrated psychoeducational tool within Health Education programs remains insufficiently systematized.

This paper proposes the HERA Model of Hypnosis-Based Psychoeducational Self-Regulation (Madeira, 2026), organized around four structural axes: (1) psychophysiological literacy and understanding of stress mechanisms; (2) attentional and imagery training; (3) emotional regulation through structured suggestion protocols; and (4) development of autonomy through supervised self-hypnosis practices.

The model has a preventive and developmental orientation and can be integrated into Health Education programs in school, university, and formative sport environments. By framing hypnosis within a pedagogical, ethical, and evidence-based perspective, this proposal contributes to expanding innovative strategies for promoting well-being and quality of life, positioning emotional self-regulation as a central competence in the integral development of the individual.

**Keywords**  
→ hypnosis  
→ emotional self-regulation  
→ health education  
→ quality of life  
→ psychophysiological regulation

**Hipnose como Estratégia Psicoeducativa de Autorregulação: Proposta de Modelo Aplicado para a Promoção da Saúde e Qualidade de Vida em Contexto Desportivo-Educativo**

A promoção da saúde psicológica em contexto desportivo-educativo assume crescente relevância, particularmente face aos níveis elevados de ansiedade competitiva, stress académico e dificuldades de autorregulação emocional evidenciadas por atletas-estudantes. Apesar da multiplicidade de intervenções centradas na otimização da performance, permanece limitada a integração estruturada de estratégias de regulação psicofisiológica com enquadramento pedagógico e preventivo. A hipnose, conceptualizada como processo de focalização atencional e modulação da experiência subjetiva através de sugestão estruturada, apresenta evidência científica ao nível da regulação da ativação, controlo atencional e gestão emocional. Todavia, a sua aplicação enquanto ferramenta psicoeducativa integrada em programas de Educação para a Saúde permanece pouco sistematizada.

O presente trabalho propõe o Modelo HERA de Autorregulação Psicoeducativa Baseado em Hipnose (Madeira, 2026), organizado em quatro eixos estruturantes: (1) literacia psicofisiológica e compreensão dos mecanismos de stress; (2) treino atencional e imagético orientado; (3) regulação emocional através de protocolos de sugestão estruturada; e (4) desenvolvimento de autonomia mediante práticas de auto-hipnose supervisionada.

**Palavras-chave**  
→ hipnose  
→ autorregulação emocional  
→ educação para a saúde  
→ qualidade de vida  
→ regulação psicofisiológica

O modelo apresenta natureza preventiva e desenvolvimental, podendo ser integrado em programas de Educação para a Saúde em contextos escolares, universitários e desportivos formativos. Ao enquadrar a hipnose numa perspetiva pedagógica, ética e baseada na evidência, esta proposta contribui para o alargamento das estratégias inovadoras de promoção do bem-estar e da qualidade de vida, posicionando a autorregulação emocional como competência central no desenvolvimento integral do indivíduo.

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### E-sports, Physical Activity and Leisure: motivations and benefits of a rising modality

The contemporary leisure landscape has undergone profound transformations due to rapid technological advancement, which has reconfigured forms of entertainment, sociability, and individual identity. In this context, E-sports have emerged as one of the most dynamic expressions of digital leisure, transcending the status of a mere hobby to assume global relevance across social, economic and cultural dimensions.

This study aims to identify the reasons for engaging in this digital modality, understand the motivations and analyze the benefits of participating in E-sports within a leisure context. A qualitative approach was used, conducting semi-structured interviews with seven male practitioners (aged 20-32), with an average age of 25. All participants have experience in international and national E-sports competitions. The data were subjected to content analysis (Bardin, 2008).

The main results indicate that motivations for practicing E-sports include an early passion for video games, competitiveness, accessibility, and a sense of community. Contrary to the stigma of physical inactivity, the interviewees balance E-sports with regular physical activity. Benefits were identified in cognitive development (attention and decision-making) and communication skills, as well as career opportunities and financial stability.

#### Keywords

- E-sports
- digital leisure
- physical activity
- well-being

### E-sports, Atividade Física e Lazer: motivações e benefícios de uma modalidade em ascensão

O panorama do lazer contemporâneo sofreu transformações profundas devido ao acelerado avanço tecnológico, que reconfigurou as formas de entretenimento, sociabilidade e identidade individual. Neste contexto, os E-sports emergiram como uma das expressões mais dinâmicas do lazer digital, transcendendo o estatuto de mero passatempo para assumirem uma relevância global nas dimensões social, económica e cultural.

Este estudo visa identificar as razões para a adesão a esta modalidade digital, conhecer as motivações e analisar os benefícios da participação nos e sports em contexto de lazer. Recorreu-se a uma abordagem qualitativa, realizando entrevistas semiestruturadas a sete praticantes masculinos (20-32 anos), com uma idade média 25 anos. Todos têm experiência em competições internacionais e nacionais de E- Sports. Os dados foram submetidos à análise de conteúdo (Bardin, 2008).

Os principais resultados indicam que as motivações para a prática dos E-sports incluem a paixão precoce por videojogos, a competitividade, a acessibilidade e o sentido de comunidade. Contrariando o estigma do sedentarismo, os entrevistados conciliam os E-sports com atividade física regular. Foram identificados benefícios no desenvolvimento cognitivo (atenção e tomada de decisão) e na capacidade de comunicação, além de oportunidades de carreira e estabilidade financeira.

O estudo demonstra que os E-sports são uma forma multifacetada de lazer que promove competências transferíveis para contextos académicos e profissionais. Contribui para a legitimação da modalidade em Portugal, sugerindo que a promoção de um equilíbrio entre a participação nos e-sports e a atividade física pode ajudar a apoiar a saúde e o bem-estar dos jogadores, especialmente à medida que o setor se torna mais profissionalizado.

#### Palavras-chave

- E-sports
- lazer digital
- atividade física
- bem-estar

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### Impact of Sedentary Behavior on Different Domains of Premenstrual Symptoms in Portuguese Female University Students: an exploratory study

In female university students, extended periods of sitting are widespread and could differently affect premenstrual symptom domains, including emotional, behavioral, pain-related, and physical signs.

This study aims to analyse the impact of sedentary behavior on different domains of premenstrual symptoms in portuguese female university students.

A total of 54 female university students participated in this cross-sectional study (22.4 ± 6.9 years). The 17-item Daily Symptom Report was used to assess premenstrual symptoms, with items grouped in 4 domains: mood (6 items), behavioral (6 items), pain (3 items), and physical symptoms (2 items). Based on daily activities, symptoms were scored on a 5-point rating system (0=absent, 4 = very severe). Participants' sedentary behavior was assessed using two items from the short-form IPAQ, inquiring about sitting time on a typical weekday and a weekend day. The 7-hour cut-off was used to examine significant differences in premenstrual symptom domains between individuals with lower and higher daily sitting time.

Premenstrual symptom scores across the four symptom domains did not differ significantly according to sitting time (≤7 h vs. >7 h) on weekdays (mood: 8.5±5.7 vs. 9.3±6.0; behavioral: 6.3±4.3 vs. 6.6±4.1; pain: 5.5±3.1 vs. 5.9±3.6; physical: 3.3±2.0 vs. 3.8±1.8) or weekends (mood: 8.7±5.7 vs. 10.6±6.6; behavioral: 6.7±4.8 vs. 6.9±3.5; Pain: 5.7±3.3 vs. 6.5±4.1; physical: 3.6±1.8 vs. 3.7±2.3).

These results may be due to small sample size, sample homogeneity, and limited variability in sitting time.

These findings indicate that sitting duration on weekdays or weekends does not appear to impact mood, behavior, pain, or physical symptoms in the participants of this study.

#### Keywords

- sedentary behavior
- sitting time
- domains of premenstrual symptoms
- university students
- exploratory studyn

### Impacto do Comportamento Sedentário nas Diferentes Dimensões dos Sintomas Pré-Menstruais em Estudantes Universitárias Portuguesas: um Estudo Exploratório

Em estudantes universitárias, longos períodos sentadas são comuns e podem afetar as diferentes dimensões de sintomas pré-menstruais: emocionais, comportamentais, dor e físicos.

Este estudo transversal teve como objetivo analisar o impacto do comportamento sedentário nestas dimensões de sintomas pré menstruais em estudantes universitárias portuguesas.

Participaram neste estudo 54 estudantes (22,4 ± 6,9 anos). Os sintomas pré-menstruais foram avaliados com o Daily Symptom Report de 17 itens, agrupados em quatro dimensões (emocionais, comportamentais, dor e físicos) e classificados numa escala de 0 (ausente) a 4 (muito intenso). O comportamento sedentário foi medido com duas questões do IPAQ versão curta, relativas ao tempo sentado em dias de semana e de fim de semana, utilizando-se um ponto de corte de 7 horas para comparar grupos com menor e maior tempo sentado.

As pontuações dos sintomas pré-menstruais nos quatro domínios não diferiram significativamente de acordo com o tempo sentado (≤7 h vs. >7 h) durante os dias de semana (humor: 8,5±5,7 vs. 9,3±6,0; comportamental: 6,3±4,3 vs. 6,6±4,1; dor: 5,5±3,1 vs. 5,9±3,6; físico: 3,3±2,0 vs. 3,8±1,8) ou fins de semana (humor: 8,7±5,7 vs. 10,6±6,6; comportamental: 6,7±4,8 vs. 6,9±3,5; dor: 5,7±3,3 vs. 6,5±4,1; físico: 3,6±1,8 vs. 3,7±2,3).

#### Palavras-chave

- comportamento sedentário
- tempo sentado
- dimensões dos sintomas pré-menstruais
- estudantes universitárias
- estudo exploratório

Estes resultados podem dever-se ao reduzido tamanho amostral, à homogeneidade da amostra e à limitada variabilidade no tempo sentado.

Neste grupo de participantes, a duração do tempo sentado não parece influenciar os sintomas pré-menstruais nas suas diferentes dimensões.

**Effectiveness of Community-Based Rehabilitation Programs for People with Knee Osteoarthritis: Protocol for a Systematic Review**

Introduction: Knee osteoarthritis (KOA) is a prevalent condition associated with pain, functional impairment, and reduced quality of

life. International recommendations support multicomponent non-pharmacological interventions, including education, self-management, and exercise, as first-line treatment. However, significant gaps remain between these recommendations and clinical practice. Community-based rehabilitation programs have been developed, but evidence regarding their effectiveness remains heterogeneous. Objective: To evaluate the effectiveness of multicomponent rehabilitation programs (education, self-management, and exercise) in people with KOA in community settings. Methods: A systematic review protocol following PRISMA-P guidelines was developed. Intervention studies in adults with KOA including education, self-management, and exercise will be included. Comparators will include usual care or non-structured interventions. Outcomes are pain, physical function, and quality of life. Searches will be conducted in electronic databases and grey

**Keywords**

- knee osteoarthritis
- rehabilitation
- exercise
- self-management
- community

literature. Study selection, data extraction, and methodological quality assessment using Joanna Briggs Institute (JBI) tools will be performed by two independent reviewers. Data will be synthesized narratively, and meta-analysis will be considered if sufficient homogeneity exists. Results: The characteristics, components, and outcomes of these programs will be analysed, identifying those potentially effective and transferable to the Portuguese community context. Conclusion: This evidence synthesis may support the development and adaptation of effective rehabilitation programs, contributing to improved care and clinical decision-making.

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**Efetividade de programas de reabilitação para pessoas com osteoartrose do joelho em contexto comunitário: Protocolo de Revisão Sistemática da Literatura**

Introdução: A osteoartrose do joelho (OAJ) é uma condição prevalente associada a dor, incapacidade funcional e redução da qualidade de vida. As recomendações internacionais preconizam intervenções não farmacológicas multicomponentes que incluem educação, autogestão e exercício físico como tratamento de primeira linha. Contudo, persistem lacunas significativas entre estas recomendações e a prática clínica. Programas de reabilitação em contexto comunitário têm sido desenvolvidos, mas a evidência da sua efetividade permanece heterogénea. Objetivo: Avaliar a efetividade de programas de reabilitação multicomponentes (educação, autogestão e exercício físico) em pessoas com OAJ em contexto comunitário. Metodologia: Protocolo de revisão sistemática segundo PRISMA-P. Serão incluídos estudos de intervenção em adultos com OAJ que integrem educação, autogestão e exercício físico. Comparadores incluem cuidados habituais ou intervenções não estruturadas. Outcomes: dor, função física e qualidade de vida. A pesquisa será realizada em bases de dados e literatura cinzenta. A seleção, extração de dados e avaliação metodológica com ferramentas do Joanna Briggs Institute (JBI) serão realizadas por dois revisores independentes. Os dados serão sintetizados de forma narrativa, sendo considerada meta-análise quando exista homogeneidade entre os estudos. Resultados: Espera-se analisar as características, componentes e resultados dos programas, identificando os potencialmente eficazes e transferíveis para o contexto comunitário em Portugal. Conclusão: Esta síntese de evidência poderá apoiar o desenvolvimento e adaptação de programas de reabilitação eficazes, contribuindo para a melhoria dos cuidados prestados e tomada de decisão clínica.

**Palavras-chave**

- osteoartrose do joelho
- reabilitação
- exercício físico
- autogestão
- comunidade

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promotion strategies. Objective: To analyze the associations between sex and fitness zones and to describe the tests with more and less favorable results. Methodology: Cross-sectional study with 90 students of Sport and Physical Activity (16 women, 74 men, age 19.6±4.1 years, height 1.73±0.08 m and weight 69.6±10.7 kg).

Associations between sex and zones were tested with Pearson’s chisquare, Fisher’s exact test, bias-corrected Cramer’s V (V̄) and standardized residuals. Results: In the sample studied, associations were observed between sex and physical fitness, expressed by FITescola zones, in waist (p<.001; V̄ =0.420), lower limb flexibility (p=.031; V̄ =0.235), horizontal jump (p<.001; V̄=0.508), push-ups (p=.032; V̄ =0.234), 20 m speed (p<.001; V̄=0.412) and mile run (p<.001; V̄ =0.768). Standardized residuals showed female overrepresentation in the unhealthy zone for waist (+3.24) and mile (+4.74) and in the athletic profile for horizontal jump (+3.84), push-ups (+2.16) and 20 m speed (+2.63). Favorable results were observed in sit-ups, horizontal jump and push-ups, and less favorable ones in lower limb flexibility, 20 m speed and agility.

Conclusion: These results suggest the usefulness of differentiated monitoring and promotion strategies, but should be interpreted with caution, given the asymmetry between groups, the loss of information inherent to categorization, and the possibility of stricter criteria in some tests and more permissive ones in others.

**Diferenças segundo o sexo nas zonas de condição física de estudantes do ensino superior: uma análise com base na bateria de testes FITescola**

Introdução: A bateria FITescola, usada em contexto escolar para monitorizar a aptidão física e promover estilos de vida saudáveis, inclui zonas que facilitam o diagnóstico da aptidão e apoiam estratégias de promoção da saúde. Objetivo: Analisar as associações entre o sexo e as zonas de condição física e descrever os testes com resultados mais e menos favoráveis. Metodologia: Estudo transversal com 90 estudantes de Desporto e Atividade Física (16 mulheres, 74 homens, idade 19,6±4,1 anos, altura 1,73±0,08 m e peso 69,6±10,7 kg). As associações entre sexo e zonas foram testadas com qui-quadrado de Pearson, Fisher, V de Cramer corrigido para viés (V̄ ) e resíduos standardizados.

Resultados: Na amostra estudada, observaram-se associações entre o sexo e a condição física, expressa pelas zonas FITescola, na cintura (p<.001; V̄ =0,420), flexibilidade MIE (p=.031; V̄ =0,235), impulsão horizontal (p<.001; V̄ =0,508), flexões de braços (p=.032; V̄ =0,234), velocidade 20 m (p<.001; V̄ =0,412) e milha (p<.001; V̄ =0,768). Os resíduos standardizados mostraram sobre-representação feminina em zona não saudável na cintura (+3,24) e na milha (+4,74) e em perfil atlético na impulsão horizontal (+3,84), flexões de braços (+2,16) e velocidade 20 m (+2,63). Os resultados

**Palavras-chave**

- avaliação física
- promoção do exercício
- intervenção educativa
- capacidades motoras e condicionais
- saúde

**Sex differences in the physical fitness zones of higher education students: an analysis based on the FITescola test battery**

Introduction: The FITescola battery, used in a school context to monitor physical fitness and promote healthy lifestyles, includes zones that facilitate fitness assessment and support health

promotion strategies. Objective: To analyze the associations between sex and fitness zones and to describe the tests with more and less favorable results. Methodology: Cross-sectional study with 90 students of Sport and Physical Activity (16 women, 74 men, age 19.6±4.1 years, height 1.73±0.08 m and weight 69.6±10.7 kg).

Associations between sex and zones were tested with Pearson’s chisquare, Fisher’s exact test, bias-corrected Cramer’s V (V̄) and standardized residuals. Results: In the sample studied, associations were observed between sex and physical fitness, expressed by FITescola zones, in waist (p<.001; V̄ =0.420), lower limb flexibility (p=.031; V̄ =0.235), horizontal jump (p<.001; V̄=0.508), push-ups (p=.032; V̄ =0.234), 20 m speed (p<.001; V̄=0.412) and mile run (p<.001; V̄ =0.768). Standardized residuals showed female overrepresentation in the unhealthy zone for waist (+3.24) and mile (+4.74) and in the athletic profile for horizontal jump (+3.84), push-ups (+2.16) and 20 m speed (+2.63). Favorable results were observed in sit-ups, horizontal jump and push-ups, and less favorable ones in lower limb flexibility, 20 m speed and agility.

Conclusion: These results suggest the usefulness of differentiated monitoring and promotion strategies, but should be interpreted with caution, given the asymmetry between groups, the loss of information inherent to categorization, and the possibility of stricter criteria in some tests and more permissive ones in others.

**Keywords**

- physical assessment
- exercise promotion
- educational intervention
- motor and conditional capacities
- health



Education,  
Citizenship, and  
Inclusion

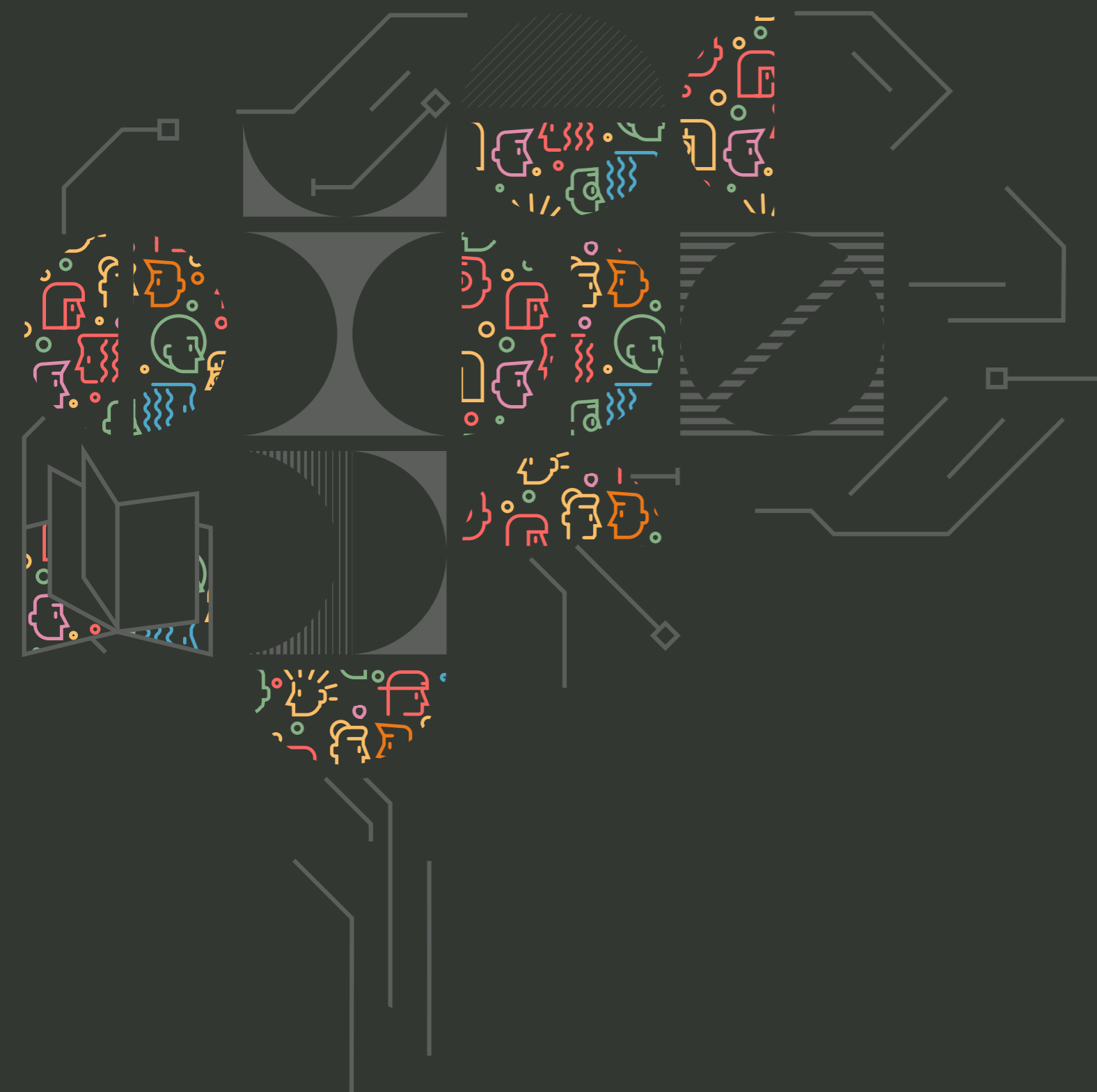
Educação,  
Cidadania e  
Inclusão

## Education, Citizenship and Inclusion

The panel on Education, Citizenship and Inclusion reveals strong convergences around the development of inclusive educational practices grounded in social, cultural, and generational diversity. The contributions emphasize the importance of lifelong digital literacy, including learning processes among older adults, as well as the role of emotions and intergenerational learning in addressing ageism and fostering more equitable learning communities. At the same time, several studies highlight inclusive approaches in areas such as physical education, teacher education, and collaborative responses to child poverty, underlining the relevance of context-sensitive practices that recognize individual and collective trajectories.

A second line of convergence points to pedagogical innovation aimed at strengthening active citizenship and social justice. The panel brings together research on participatory interventions with migrant populations, multi-sensory and narrative-based inclusive strategies, and the use of urban and cultural spaces as expanded learning environments. In parallel, the contributions stress the importance of teachers' digital competences, collaborative practices, and culturally responsive mediation in fostering inclusive educational settings. Overall, these perspectives converge in framing education as a transformative space that promotes equity, values diversity, and supports the formation of critical and engaged citizens, in dialogue with emerging approaches such as artificial intelligence, interculturality, and hypercultural educational spaces.

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Citizenship and Inclusion





## Summary | Sumário

- 101 Education, Citizenship and Inclusion
- 109 UniPlural Project: Dueling with Prejudice in Academia  
Projeto UniPlural: duelando com os preconceitos no meio acadêmico
- 110 Multi-Sensory Storytelling as an Inclusive Pedagogical Strategy for Students with Profound Intellectual and Multiple Disabilities  
Histórias Multissensoriais: Uma Estratégia Pedagógica para a Inclusão de Alunos com Multideficiência
- 111 Inclusion with Quality: The Impact of the Personal Outcomes Scale – Children and Adolescents  
Inclusão com Qualidade: O Impacto da Escala Pessoal de Resultados – Crianças e Jovens
- 112 Considering the Potential of Inclusive Physical Education Practices Based on the Ecological Dynamics Approach  
Considerando o potencial das práticas de educação física inclusiva baseadas na abordagem da dinâmica ecológica
- 113 The Role of International Projects in Higher Education: Motivations, Strategic Value, and Impact  
O Papel dos Projetos Internacionais no Ensino Superior: Motivações, Valor Estratégico e Impacto
- 114 Teacher Education and Inclusion in Physical Education: Life Histories of Teachers Who Are Parents of Children with Autism  
Formação de professores e inclusão na educação física: histórias de vida de professores que são pais de crianças com autismo
- 115 Hypercultural Education Spaces: Foundations for the Construction of Inclusive Citizenship  
Espaços de Educação Hipercultural: Fundamentos para a Construção de uma Cidadania Inclusiva
- 116 Decolonial Climate Education: Plural knowledges and justice in the anthropocene crisis  
Educação Climática Decolonial: Saberes Plurais e Justiça na Crise do Antropoceno
- 117 Waist-hip ratio in Portuguese adults newly enrolled in a health club  
Razão cintura-quadril em adultos portugueses recém-inscritos num ginásio
- 118 Linguistic Inclusion as a Pathway to Social Integration: A Participatory Action Intervention with Migrants at Porta Solidária (Porto, Portugal)  
Inclusão Linguística como Via para a Integração Social: Intervenção de Investigação-Ação com Migrantes na Porta Solidária (Porto, Portugal)







### UniPlural Project: Dueling with Prejudice in Academia

The UniPlural Project arises from concerns about the lack of diversity in academia, even though the university is considered a multicultural space. Arriving in an environment and not seeing bodies similar to our own generates insecurity and a sense of non-belonging, affecting academic trajectories. Thus, the following question emerges: how can the university become more plural and representative of historically marginalized bodies?

The general objective is to implement plurality within the faculty and student body. The specific objectives are to assess representativeness, develop actions to combat discrimination, regulate institutional processes, and promote the deconstruction of preconceived and limiting ideas about marginalized bodies.

The research adopts a qualitative approach and began with the application of an online questionnaire (41 respondents), supporting the construction of an Empathy Map and the identification of perceptions regarding welcoming practices, infrastructure, and, above all, the absence of diversity. Based on this diagnosis, the project proposes focus groups, data dissemination, testimonials, training sessions, and gamified dynamics as awareness strategies.

The expected outcomes include greater faculty and student representativeness, the strengthening of inclusive policies, and the expansion of research on diversity. It is concluded that pluralizing the university means breaking stigmas and transforming institutional cultures.

#### Keywords

- plurality
- representativeness
- diversity
- university
- inclusion

### Projeto UniPlural: duelando com os preconceitos no meio acadêmico

O Projeto UniPlural nasce da inquietação diante da falta de diversidade no meio acadêmico, mesmo sendo a universidade um espaço multicultural. Chegar em um ambiente e não ver corpos semelhantes ao nosso gera insegurança e sensação de não pertencimento, afetando trajetórias acadêmicas. Assim, questiona-se: como a universidade pode ser mais plural e representativa de corpos historicamente inferiorizados?

O objetivo geral é implementar pluralidade no meio docente e discente. Como objetivos específicos, busca-se avaliar a representatividade, desenvolver ações que combatam discriminações, regulamentar processos institucionais e promover a quebra de ideias preconcebidas sobre corpos marginalizados.

A pesquisa possui abordagem qualitativa e iniciou com aplicação de questionário online (41 respondentes), subsidiando a construção de um Mapa da Empatia e a identificação de percepções

#### Palavras-chave

- pluralidade
- representatividade
- diversidade
- universidade
- inclusão

sobre acolhimento, estrutura e, principalmente, ausência de diversidade. A partir desse diagnóstico, o projeto propõe grupos focais, exposições de dados, depoimentos, capacitações e dinâmicas com gamificação, como estratégia de conscientização.

Espera-se alcançar maior representatividade docente e discente, fortalecimento de políticas inclusivas e ampliação de pesquisas sobre diversidade. Conclui-se que pluralizar a universidade é romper estigmas e transformar culturas institucionais.

### Multi-Sensory Storytelling as an Inclusive Pedagogical Strategy for Students with Profound Intellectual and Multiple Disabilities

Multi-Sensory Storytelling (MSST) is a pedagogical approach that combines short narratives with sensory stimuli, providing accessible and meaningful learning experiences for students with Profound Intellectual and Multiple Disabilities (PIMD). This study analyses eight research projects conducted between 2015 and 2022 in the master's Programme in Special Education at ESELx, with the aim of characterizing the MSST materials produced, describing the implemented practices, and identifying their impact on the development and inclusion of these students. The qualitative methodology involved a documentary analysis of these studies carried out in mainstream educational settings and in a public library. Findings indicate that MSST sessions using real objects and natural sensory stimuli enhance engagement, attention, and active participation, supporting the development of communicative, socio-emotional, and emergent literacy skills. Individual or small group sessions were particularly effective, and repeated storytelling strengthened anticipation and narrative comprehension. MSST also fostered positive social interactions among children with and without PIMD. The studies reviewed advance knowledge on MSST in inclusive contexts, including comparisons with Author Stories and Social Stories, and the participation of typically developing children.

#### Keywords

- multi-Sensory storytelling
- multiple disabilities
- inclusive pedagogical strategy

They further highlight dimensions of engagement that remain underexplored internationally. Overall, MSST emerges as an effective and inclusive pedagogical strategy with strong potential to promote social interaction, development, and participation among students with PIMD, reinforcing the need to expand research and practice across diverse educational and cultural contexts.

### Histórias Multissensoriais: Uma Estratégia Pedagógica para a Inclusão de Alunos com Multideficiência

As Histórias Multissensoriais (HMS) constituem uma abordagem pedagógica que articula narrativas breves com estímulos sensoriais, proporcionando experiências acessíveis e significativas a alunos com multideficiência (MD). Este estudo analisa oito investigações desenvolvidas entre 2015 e 2022 no Mestrado em Educação Especial da ESELx, com o objetivo de caracterizar as HMS produzidas, descrever as práticas implementadas e identificar o seu impacto no desenvolvimento e inclusão destes alunos. A metodologia qualitativa baseou-se numa análise documental dos oito estudos realizados em contextos educativos regulares e numa biblioteca pública. Os resultados evidenciam que HMS construídas com objetos reais e estímulos naturais aumentam o envolvimento, a atenção e a participação ativa, favorecendo competências comunicativas, socioemocionais e de literacia. As sessões individuais ou em pequeno grupo revelaram maior eficácia, e a repetição das histórias potenciou a antecipação e a compreensão da narrativa. As HMS promoveram ainda interações sociais positivas entre crianças com e sem MD. Os estudos analisados contribuem para o avanço do conhecimento, nomeadamente no uso de HMS em contextos inclusivos, na comparação com Histórias de Autor e Histórias Sociais e na participação de crianças com desenvolvimento típico. Evidenciam também dimensões do envolvimento pouco exploradas internacionalmente.

Conclui-se que as HMS constituem uma estratégia pedagógica eficaz e inclusiva, com elevado potencial para promover interações sociais positivas, bem como o desenvolvimento e a participação de alunos com MD, reforçando a pertinência de ampliar a investigação e a prática em contextos educativos e culturais diversificados.

#### Palavras-chave

- histórias multissensoriais
- multideficiência
- abordagem pedagógica
- inclusão

### Inclusion with Quality: The Impact of the Personal Outcomes Scale – Children and Adolescents

The Personal Outcomes Scale for Children and Adolescents (POS-C) was developed to assess the Quality of Life (QOL) of students across eight core domains. This research aims (a) to analyze the instrument's validity, including content, construct, convergent, and discriminant validity; (b) to examine the scale's reliability through test-retest, internal consistency, and inter-rater agreement; and (c) to compare QOL perceptions from the perspective of both students and their respective caregivers. Data were collected from 1,674 students and their caregivers (n=1,334). The QOL assessment was conducted using the POS-C, which assesses the QOL of students aged 6 to 18 through two sections (self-report and report-of-others). The Statistical Package for Social Sciences (SPSS) was used for the analyses. The findings support the scale's validity and reliability, demonstrating its psychometric robustness as a tool for assessing QOL in inclusive education by integrating the perspectives of different educational stakeholders. From the perspective of students with selective and additional support needs, the highest scores emerged in the Interpersonal Relations dimension (M=16.01, SD=1.74), while the lowest scores were observed in the Social Inclusion (M=14.16, SD=2.52) and Self-Determination (M=14.52, SD=2.26) domains. Despite the universal nature of the construct, it was found that students without barriers to curriculum access present higher QOL levels compared to children and adolescents requiring additional support. These data allow for reflection on the need for inclusive schools to strive for quality, based on the monitoring of their interventions' impact.

#### Keywords

- quality of life
- inclusive education
- assessment
- monitoring

### Inclusão com Qualidade: O Impacto da Escala Pessoal de Resultados – Crianças e Jovens

A Escala Pessoal de Resultados-Crianças e Jovens (EPR-CJ) avalia a qualidade de vida (QV) de alunos, baseada em oito domínios. A presente investigação teve como objetivos: (a) analisar a validade do instrumento, nomeadamente a validade de conteúdo, de constructo, convergente e discriminante; (b) examinar a fiabilidade da escala, através do teste-reteste, da consistência interna e do acordo entre observadores; e (c) averiguar as perceções sobre a QV das crianças e jovens, na perspetiva dos alunos e dos respetivos cuidadores. Os dados foram recolhidos de 1674 alunos e dos seus cuidadores (n=1334). Como instrumento de recolha de dados utilizou-se a EPR-CJ, que avalia a QV de alunos entre os 6 e os 18 anos e inclui duas secções (autorrelato e relato dos cuidadores). Os dados, analisados através do Statistical Package for Social Sciences (SPSS), sustentam a validade e a fiabilidade da escala, comprovando ser um instrumento com robustez psicométrica para avaliar a QV no âmbito da educação inclusiva, incluindo perceções de diversos envolvidos no processo educativo. Na perspetiva dos alunos com medidas seletivas e adicionais, os valores mais altos surgem na dimensão das Relações Interpessoais (M=16.01, SD=1.74) e os valores menos elevados são observados nos domínios da Inclusão Social (M=14.16, SD=2.52) e da Autodeterminação (M=14.52, SD=2.26). Apesar de estarmos a analisar um constructo universal, verificou-se que os alunos sem dificuldades no acesso aos referenciais curriculares apresentam uma melhor QV, quando comparados com crianças e jovens com dificuldades acrescidas. Os dados permitem refletir sobre a necessidade de a escola inclusiva almejar a qualidade, baseada na monitorização do impacto das suas intervenções.

#### Palavras-chave

- qualidade de vida
- educação inclusiva
- avaliação
- monitorização

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### Considering the Potential of Inclusive Physical Education Practices Based on the Ecological Dynamics Approach

Introduction; Inclusive physical education refers to physical

education classes in which learners with diverse backgrounds learn together in the same environment.

Objective; This study aims to clarify how teachers can implement inclusive physical education classes by considering physical education from the perspective of the ecological dynamics approach.

Methodology; This study considered the perspectives on learning and lesson design in inclusive physical education based on ecological dynamics approach. Specifically, it focused on three aspects: the understanding of learners' "being able to perform," the comprehension of the learning process, and the role of the teacher.

Results; From this perspective, "being able to perform" in physical education is understood not only as improving learners' physical abilities but also as emerging through the development of environments suited to their physical abilities. Furthermore, learning in physical education is viewed as a process of exploring and searching for functional and adaptive movement solutions. Such learning does not mean requiring all learners to achieve the same goals or acquire the "one-size fits all" skills. Rather, it is understood as a process in which diverse learners explore a variety of solutions in order to generate the skills ("being able to perform") that are suited to themselves.

#### Keywords

- ecological dynamics approach
- inclusive physical education
- affordance

Conclusion; From this perspective, it is possible to implement inclusive physical education that is individualized for diverse learners, even while they learn within the same environment. Therefore, in order to practice inclusive physical education, it is necessary for physical education teachers to design learning environments in which such learning processes can emerge.

### Considerando o potencial das práticas de educação física inclusiva baseadas na abordagem da dinâmica ecológica

Introdução; A educação física inclusiva refere-se a aulas de educação física nas quais aprendizes com diferentes origens aprendem juntos no mesmo ambiente.

Objetivo; Este estudo tem como objetivo esclarecer como os professores podem implementar aulas de educação física inclusiva ao considerar a educação física a partir da abordagem de dinâmica ecológica.

Metodologia; Este estudo analisou a aprendizagem e o planejamento de aulas na educação física inclusiva, com base na abordagem de dinâmica ecológica. Especificamente, concentrou-se em três aspectos: a compreensão do "ser capaz de realizar" pelos aprendizes, a compreensão do processo de aprendizagem e o papel do professor.

Resultados; O conceito de "ser capaz de realizar" na educação física é entendido não apenas como a melhoria das habilidades físicas dos aprendizes, mas também como algo que surge por meio do desenvolvimento de ambientes adequados às suas capacidades físicas. Além disso, a aprendizagem é vista como um processo de exploração e busca de soluções de movimento funcionais e adaptativas. Esse tipo de aprendizagem não significa exigir que os aprendizes alcancem os mesmos objetivos ou adquiram habilidades "tamanho único". Pelo contrário, é compreendida como um processo no qual aprendizes diversos exploram uma variedade de soluções para desenvolver as habilidades que melhor se adequam a cada um.

Conclusão; É possível implementar a educação física inclusiva de forma individualizada para aprendizes diversos, mesmo enquanto eles aprendem dentro do mesmo ambiente. Portanto, para praticar a educação física inclusiva, é necessário que os professores de educação física projetem ambientes de aprendizagem nos quais esses processos de aprendizagem possam surgir.

#### Palavras-chave

- abordagem da dinâmica ecológica
- educação física inclusiva
- afordância

### The Role of International Projects in Higher Education: Motivations, Strategic Value, and Impact

Introduction – International projects play a central role in the strategic development of HEIs, fostering internationalisation, visibility, and access to external funding.

Objectives – This study examines the motivations that lead HEI professionals to engage in such projects, as well as their perceptions of the strategic value and impact of these projects.

Methodology – The study used a focus group and a questionnaire with both open- and closed-ended questions. Qualitative data were analysed through thematic analysis, including transcription, iterative reading, systematic coding, and the development of thematic categories aligned with the research objectives.

Results – International projects are perceived not only as funding opportunities, but also as instruments of institutional transformation. Key contributions were identified in relation to internationalisation, competitiveness, organisational learning, and alignment with global educational challenges. At the professional level, participants reported gains in skills development, pedagogical and scientific innovation, and the expansion of collaborative networks. At the personal level, intercultural learning and cultural enrichment were particularly evident.

Conclusion – These projects generate a sustained, multidimensional impact, serving as powerful strategic mechanisms for institutional development and professional growth in HEIs.

#### Keywords

- international projects
- higher education
- internationalisation
- institutional development
- professional learning

### O Papel dos Projetos Internacionais no Ensino Superior: Motivações, Valor Estratégico e Impacto

Introdução – Os projetos internacionais assumem um papel central no desenvolvimento estratégico das HEI, promovendo internacionalização, visibilidade e acesso a financiamento externo.

Objetivos – Este estudo analisa as motivações que levam os profissionais das HEI a participar nestes projetos, bem como a percepção do seu valor estratégico e impacto.

Metodologia - A investigação baseou-se num grupo focal e num questionário com questões abertas e fechadas, sendo os dados qualitativos analisados por meio de análise temática, incluindo transcrição, leitura iterativa, codificação sistemática e desenvolvimento de categorias temáticas alinhadas com os objetivos.

Resultados – Estes projetos são percebidos não apenas como oportunidades de financiamento, mas como instrumentos de transformação institucional. Destacam-se contributos ao nível da internacionalização, competitividade, aprendizagem organizacional e alinhamento com desafios educativos globais. No plano profissional,

#### Palavras-chave

- projetos internacionais
- ensino superior
- internacionalização
- desenvolvimento institucional
- aprendizagem profissional

identificam-se ganhos ao nível do desenvolvimento de competências, inovação pedagógica e científica, e alargamento de redes colaborativas. No plano pessoal, sobressaem a aprendizagem intercultural e o enriquecimento cultural.

Conclusão – Estes projetos têm um impacto multidimensional e sustentado, constituindo-se como mecanismos estratégicos impactantes para o desenvolvimento institucional e o crescimento profissional nas IES.

### Teacher Education and Inclusion in Physical Education: Life Histories of Teachers Who Are Parents of Children with Autism

The inclusion of students with Autism Spectrum Disorder (ASD) in the school context still presents challenges related to teacher education and pedagogical practices. This study aims to analyze the life histories of Physical Education teachers who are parents of children with autism, identifying how the competencies acquired during their training contribute to the development of inclusive practices. This is a qualitative study, based on the life history

approach, conducted with three teachers from the city of Mossoró (RN), Brazil. Data were collected through semi-structured interviews, followed by transcription and content analysis. The results show that initial teacher education is insufficient to address inclusion, highlighting the need for continuing professional development, practices that ensure

students' access and participation, and changes in teachers' attitudes. The findings also indicate that Physical Education has potential for inclusion, as it fosters social interaction and psychomotor development when mediated by planned practices committed to diversity. It is concluded that the effective implementation of inclusion depends on institutional and teacher commitment to diversity, making it essential to invest in teacher education and in the reconfiguration of pedagogical practices to ensure inclusive and high-quality education.

#### Keywords

- autismo
- physical education
- inclusion
- teacher education
- accessibility

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### Formação de professores e inclusão na educação física: histórias de vida de professores que são pais de crianças com autismo

A inclusão de alunos com Transtorno do Espectro Autista (TEA) no contexto escolar ainda apresenta desafios relacionados à formação docente e às práticas pedagógicas. Este estudo tem como objetivo analisar as histórias de vida de professores de Educação Física que são pais de crianças com autismo, identificando de que forma as competências adquiridas em sua formação contribuem para a construção de práticas inclusivas. Trata-se de uma pesquisa qualitativa, do tipo histórias de vida, realizada com três professores da cidade de Mossoró (RN). A coleta de dados ocorreu por meio de entrevistas semiestruturadas, com posterior transcrição e análise de conteúdo. Os resultados evidenciam que a formação inicial é insuficiente para lidar com a inclusão, apontando para a necessidade de formação continuada, de práticas que garantam o acesso e a participação dos alunos, além de mudanças nas atitudes docentes. Também indicam que a Educação Física possui potencial para a inclusão, ao favorecer a interação social e o desenvolvimento psicomotor, quando mediada por práticas planejadas e comprometidas com a diversidade. Conclui-se que a efetivação da inclusão depende do compromisso institucional e docente com a diversidade, sendo essencial investir na formação e na ressignificação das práticas pedagógicas para garantir uma educação inclusiva e de qualidade.

#### Palavras-chave

- autismo
- educação física
- inclusão
- formação docente
- acessibilidade

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### Hypercultural Education Spaces: Foundations for the Construction of Inclusive Citizenship

This theoretical-reflective essay is grounded in the work *Hypercultural Education and Human Rights* (Madureira & Viché, 2026) and aims to analyze the role of educational spaces in promoting inclusive coexistence within culturally diverse contexts. Based on the concept of hyperculturality, understood as a dynamic process of interconnection, fluidity, and cultural hybridization, the study critically examines traditional educational models centered on assimilation or mere multicultural coexistence, proposing instead a relational, ethical, and transformative approach.

The methodology is based on a critical essay framework, articulating theoretical contributions from various authors with a conceptual analysis of formal and informal educational spaces. Within this perspective, the school is understood as a privileged space for intercultural mediation and democratic citizenship education, while community and digital contexts emerge as complementary territories for learning, interaction, and the construction of belonging.

The text highlights the importance of safe, inclusive, and participatory environments capable of fostering mutual recognition, dialogue, and cooperation among culturally diverse individuals. It argues that hypercultural education requires structured educational policies, inclusive curricula, and teacher training oriented toward social justice, human rights, and the recognition of diversity as a pedagogical resource.

It concludes that the construction of hypercultural spaces implies a paradigmatic transformation of education, aimed at developing ethical, critical, and relational competencies, which are essential for building more just, supportive, and democratically sustainable societies.

#### Keywords

- hypercultural education
- inclusive citizenship
- intercultural dialogue
- cultural diversity
- Human Rights education

### Espaços de Educação Hipercultural: Fundamentos para a Construção de uma Cidadania Inclusiva

Este ensaio, de natureza teórico-reflexiva, fundamenta-se na obra *Educação Hipercultural e Direitos Humanos* (Madureira & Viché, 2026) para analisar o papel dos espaços educativos na promoção de uma convivência inclusiva em contextos marcados pela diversidade cultural. Partindo do conceito de hiperculturalidade, compreendida como dinâmica de interconexão, fluidez e hibridização cultural, o estudo problematiza modelos tradicionais de educação centrados na assimilação ou na mera coexistência multicultural, propondo uma abordagem relacional, ética e transformadora.

A metodologia adotada assenta no ensaio crítico, articulando contributos teóricos de diferentes autores com a análise conceptual dos espaços formais e informais de educação. Nesse enquadramento, a escola é entendida como espaço privilegiado de mediação intercultural e de formação para a cidadania democrática, enquanto os contextos comunitários e digitais emergem como territórios complementares de aprendizagem, interação e construção de pertença.

O texto destaca a importância de ambientes seguros, inclusivos e participativos, capazes de promover reconhecimento mútuo, diálogo e cooperação entre sujeitos culturalmente diversos. Defende-se que a educação hipercultural exige

políticas educativas estruturais, currículos inclusivos e formação docente orientada para a justiça social, os direitos humanos e a valorização da diversidade como recurso pedagógico.

#### Palavras-chave

- educação hipercultural
- cidadania inclusiva
- diálogo intercultural
- diversidade cultural
- educação em Direitos Humanos

Conclui-se que a construção de espaços hiperculturais implica uma transformação paradigmática da educação, orientada para o desenvolvimento de competências éticas, críticas e relacionais, indispensáveis à consolidação de sociedades mais justas, solidárias e democraticamente sustentáveis.

**Decolonial Climate Education: Plural knowledges and justice in the anthropocene crisis**

The climate crisis expresses a civilizational rupture rooted in Western modernity and colonial logics that structure the relationship between society and nature. In this context, rethinking education beyond technocratic approaches becomes urgent. This study aims to: analyze the foundations of a decolonial climate education in Brazil; identify tensions and gaps in the National Common Curricular Base (BNCC) regarding climate approaches and plural knowledges; and propose critical pedagogical axes. Methodologically, this is a qualitative, theoretical-documentary study structured around two interconnected movements. The first, of a critical hermeneutic nature, organizes interpretation across three analytical levels: socio-historical analysis, which situates authors and works within their contexts of production; formal and discursive analysis, which examines the structure, concepts, and arguments of the texts; and interpretation and reinterpretation, in which the ideas of different authors are brought into dialogue with the central research problem, lending the bibliographic review an analytical and propositional character. The second movement consists of documentary analysis of the BNCC. The results show that schools continue to reproduce the

- Keywords**
- climate education
  - decoloniality
  - climate justice
  - ecology of knowledges

coloniality of nature by rendering invisible indigenous, quilombola, and traditional knowledges, and that the BNCC, despite mentioning sustainability, subordinates the climate question to Eurocentric paradigms. Three axes are proposed: a decolonial and interdisciplinary curriculum; the school as a territory of resistance; and critical climate literacy. It is concluded that decolonial climate education is an urgent historical necessity for structurally addressing the ecological crisis.

**Educação Climática Decolonial: Saberes Plurais e Justiça na Crise do Antropoceno**

A crise climática expressa uma ruptura civilizatória enraizada na modernidade ocidental e em lógicas coloniais que estruturam a relação entre sociedade e natureza. Diante disso, torna-se urgente repensar a educação para além de abordagens tecnocráticas. Este trabalho tem como objetivos: analisar os fundamentos de uma educação climática decolonial no Brasil; identificar tensões e lacunas na Base Nacional Curricular Comum (BNCC) quanto à abordagem climática e aos saberes plurais; e propor eixos pedagógicos críticos. Metodologicamente, trata-se de pesquisa qualitativa teórico-documental estruturada em dois movimentos interligados. O primeiro, de natureza hermenêutica crítica, organiza a interpretação em três níveis analíticos: a análise sócio-histórica, que situa autores e obras em seus contextos de produção; a análise formal e discursiva, que examina estrutura, conceitos e argumentos dos textos; e a interpretação e reinterpretação, em que as ideias dos autores são postas em diálogo com a problemática central da pesquisa, conferindo à revisão bibliográfica caráter analítico e propositivo. O segundo movimento consiste na análise documental da BNCC. Os resultados evidenciam que a escola reproduz a colonialidade da natureza ao invisibilizar saberes indígenas, quilombolas e tradicionais, e que a BNCC, apesar de mencionar sustentabilidade, subordina a questão climática a paradigmas eurocêntricos. Propõem-se três eixos: currículo decolonial e interdisciplinar; escola como território de resistência; e alfabetização climática crítica. Conclui-se que uma educação climática decolonial é necessidade histórica urgente para o enfrentamento estrutural da crise ecológica.

- Palavras-chave**
- educação climática
  - decolonialidade
  - justiça climática
  - ecologia de saberes

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outcomes. The assessment of this measure in adults at the time of health club enrollment is particularly relevant, as it allows the characterization of cardiometabolic risk profiles before the start of regular physical activity and the establishment of reference values for future monitoring.

The purpose of this cross sectional study was to evaluate the waist-to-hip ratio by sex and age group in adults newly enrolled in a health club and compare it with the WHO reference values.

A convenience sample of 354 adults (65.9% women, 31.9 ± 9.1 years) was used. Waist and hip circumferences were measured according to WHO guidelines and WHO reference cutoffs were used for comparison (0.85 for women; 0.90 for men). Values of the waist-hip ratio were expressed as median and stratified by sex and age groups (18-29; 30-39; 40-49 years).

In women, the median waist-to-hip ratio were significantly higher than the WHO reference value of 0.85 (overall: 0.88; 30–39 years: 0.88; 40–49 years: 0.92; p < 0.001 for all comparisons). In the 18-29 age group (Med = 0.84), no significant difference was observed (p = 0,825). The median waist-to-hip ratio in men were significantly higher than the WHO reference value of 0.90 (overall: 0.96; 18–29 years: 0.95; 30–39 years: 1.05; 40–49 years: 1.10; p < 0.001 for all comparisons).

A substantial proportion of both men and women exhibited waist-to-hip ratios above the WHO reference values, particularly in the older age groups, indicating an elevated cardiometabolic risk profile in this group of adults newly enrolled in a health club.

**Razão cintura-quadril em adultos portugueses recém-inscritos num ginásio**

A razão cintura-quadril é frequente utilizada como um indicador de adiposidade central. A avaliação desta medida em adultos, no momento da inscrição num ginásio, é particularmente relevante, uma vez que permite caracterizar perfis de risco cardiometabólico antes do início da prática regular de atividade física.

O objetivo deste estudo transversal foi avaliar a razão cintura-quadril por sexo e grupo etário em adultos recém inscritos num ginásio e compará-la com os valores de referência da OMS.

Foi utilizada uma amostra de conveniência de 354 adultos (65,9% mulheres, 31,9 ± 9,1 anos). As circunferências da cintura e da anca foram medidas de acordo com as diretrizes da OMS e os pontos de corte da OMS foram utilizados para comparação (0,85 para mulheres; 0,90 para homens). Os valores da razão cintura-quadril foram expressos como mediana e estratificados por sexo e grupo etário (18–29; 30–39; 40–49 anos).

Nas mulheres, as medianas da razão cintura-quadril foram significativamente superiores ao valor de referência da OMS de 0,85 (geral: 0,88; 30–39 anos: 0,88; 40–49 anos: 0,92; p < 0,001 para todas as comparações). No grupo etário 18–29 anos (Med = 0,84), não se observou diferença significativa (p = 0,825). Nos homens, a mediana da razão cintura-quadril foi significativamente superior ao valor de referência da OMS de 0,90 (geral: 0,96; 18–29 anos: 0,95; 30–39 anos: 1,05; 40–49 anos: 1,10; p < 0,001 para todas as comparações).

- Palavras-chave**
- razão cintura-quadril
  - adiposidade central
  - risco cardiometabólico
  - adultos
  - ginásio

Uma proporção significativa tanto de homens como de mulheres apresentou razão cintura-quadril acima dos valores de referência da OMS, particularmente nos grupos etários mais velhos, indicando um perfil de risco cardiometabólico elevado neste grupo de adultos recém-inscritos num ginásio.

**Waist-hip ratio in Portuguese adults newly enrolled in a health club**

Waist-to-hip ratio is commonly used as an indicator of central adiposity, which is linked to adverse metabolic and cardiovascular

- Keywords**
- wais-to-hip ratio
  - central adiposity
  - cardiometabolic risk
  - adults
  - health club

### Linguistic Inclusion as a Pathway to Social Integration: A Participatory Action Intervention with Migrants at Porta Solidária (Porto, Portugal)

Introduction: In Portugal, language is a key means of access to rights and may function as symbolic power (Bourdieu). Objective: to analyse a brief linguistic inclusion intervention at Porta Solidária (Porto) and its effects on the integration of migrants in vulnerable situations. Methodology: Participatory Action Research (sociocritical paradigm), with the voluntary participation of 20 adult migrants (from North Africa, West Africa, South Asia, and Latin America). Four sessions (45 minutes, after meals) were conducted on self-introduction, food, health, and mobility, using images, roleplay, and a multilingual leaflet. The evaluation combined a satisfaction scale (1–5), participant observation, open comments, and two exploratory interviews; thematic analysis was carried out.

Results: the narratives revealed language barriers in forms, healthcare, work, and mobility, associated with fear and dependence. Functional linguistic gains were observed (phrases/requests in real-life contexts), along with increased communicative confidence, reduced dependence on informal mediation, and a stronger sense of belonging and peer support.

#### Keywords

- linguistic inclusion
- migration participatory
- adult education
- critical pedagogy
- participatory action research

Satisfaction was high, and a recurring request for continuity emerged. Conclusion: The results suggest that a dialogical and dignity-centred approach, inspired by Freire's critical pedagogy, may contribute to the linguistic inclusion and social integration of migrants in vulnerable situations by promoting greater communicative confidence, autonomy in everyday interactions, and a sense of belonging. In collaboration with the institution, a follow up phase is being planned in order to extend the session cycles and connect them with formal Portuguese language provision.

### Inclusão Linguística como Via para a Integração Social: Intervenção de Investigação-Ação com Migrantes na Porta Solidária (Porto, Portugal)

Introdução: Em Portugal, a língua é chave de acesso a direitos e pode funcionar como poder simbólico (Bourdieu). Objetivo: analisar uma intervenção breve de inclusão linguística na Porta Solidária (Porto) e os seus efeitos na integração de migrantes em vulnerabilidade. Metodologia: Investigação-Ação Participatória (paradigma sócio-crítico), com participação voluntária de 20 migrantes adultos (Norte de África, África Ocidental, Sul da Ásia e América Latina). Foram realizadas 4 sessões (45 min, pós-refeição) sobre apresentação pessoal, alimentação, saúde e deslocamentos, com imagens, simulações e folheto plurilingue. A avaliação combinou escala de satisfação (1–5), observação participante, mensagens livres e 2 entrevistas exploratórias; realizou-se análise temática. Resultados: as narrativas evidenciam barreiras linguísticas em formulários, saúde, trabalho e mobilidade, associadas a medo e dependência. Observaram-se ganhos linguísticos funcionais (frases/pedidos em contextos reais), maior confiança comunicativa, menor dependência de mediação informal e reforço de pertença e apoio entre pares. A satisfação foi elevada e emergiu pedido recorrente de continuidade.

Conclusão: Os resultados sugerem que uma abordagem dialógica e centrada na dignidade, inspirada na pedagogia crítica de Freire, pode contribuir para a inclusão linguística e a integração social de migrantes em situação de vulnerabilidade, promovendo maior confiança comunicativa, autonomia nas interações quotidianas e sentimento de pertença. Em articulação com a instituição, encontra-se planeada uma fase de continuidade, com vista ao prolongamento dos ciclos de sessões e à ligação com ofertas formais de aprendizagem do português.

#### Palavras-chave

- inclusão linguística
- migrações
- educação de adultos
- pedagogia crítica
- investigação-ação participatória

### Perceptions of spirituality and its influence on sports performance: an exploratory approach

Spirituality has gained increasing relevance in sports sciences, standing out as a psychological and existential factor that influences well-being and performance. However, gaps remain in research regarding how athletes integrate this dimension into their sporting involvement.

This study aimed to understand the perception of spirituality in competitive athletes and analyze its influence on sports performance.

Methodologically, a qualitative, exploratory and interpretive approach was adopted. The field of study included nine male athletes with experience in national and international competitions across various disciplines. Semi-structured interviews were used and the data were examined through content analysis technique (Bardin, 2008).

The main results indicate that spirituality proved to be a central dimension, manifested through values such as faith, gratitude, perseverance, and humility. These elements assist in interpreting challenges, favoring emotional regulation and the strengthening of resilience. Practices such as prayer and personal reflection were identified as support strategies that promote states of calm, confidence and mental focus. Furthermore, spirituality provides a transcendent meaning to the practice, allowing for a balanced processing of victories and defeats.

It is concluded that spirituality functions as a robust psychological resource for adapting to competitive stress and personal development. The study reinforces the need for a holistic approach in sports, integrating sociological, psychological and existential dimensions into the understanding of athlete performance.

#### Keywords

- spirituality
- sport
- sports Performance

### Perceções da espiritualidade e a sua influência na performance desportiva: uma abordagem exploratória

A espiritualidade tem assumido crescente relevância nas ciências do desporto, destacando-se como um fator psicológico e existencial que influencia o bem-estar e a performance. No entanto, persistem lacunas na investigação sobre como os atletas integram esta dimensão no seu envolvimento desportivo.

Este estudo teve como objetivo compreender a perceção da espiritualidade em atletas de contexto competitivo e analisar a sua influência no desempenho desportivo.

Em termos metodológicos, adotou-se uma abordagem qualitativa, exploratória e interpretativa. O campo de estudo incluiu nove atletas do sexo masculino com experiência em competições nacionais e internacionais em diversas modalidades. Utilizaram-se entrevistas semiestruturadas, sendo os dados examinados através da técnica de análise de conteúdo (Bardin, 2008).

Os principais resultados indicam que a espiritualidade se revelou uma dimensão central, manifestada por valores como fé, gratidão, perseverança e humildade. Estes elementos auxiliam na interpretação de desafios, favorecendo a regulação emocional e o fortalecimento da resiliência. Práticas como a oração e a reflexão pessoal foram identificadas como estratégias de apoio que promovem estados de calma, confiança e foco mental. Além disso, a espiritualidade confere um sentido transcendente à prática, permitindo processar vitórias e derrotas de forma equilibrada.

#### Palavras-chave

- espiritualidade
- desporto
- desempenho desportivo

Conclui-se que a espiritualidade funciona como um recurso psicológico robusto para a adaptação ao stress competitivo e desenvolvimento pessoal. O estudo reforça a necessidade de uma abordagem holística no desporto, integrando dimensões sociológicas, psicológicas e existenciais na compreensão do desempenho dos atletas.

### Readings in urbanity: street art and social dynamics (re)interpreted - the artistic and cultural sensibilities of social education students

The contemporary urban space and its increasingly intense daily dynamics encompass symbolic and interpretative potential that reflects particular experiences, both individual and collective. Through these interpretations, an opportunity arises to analyse artistic productions and visions, cultural and ethnographic records, and aesthetic tensions, as well as manifestations of the social power assumed by street art, in a process of communication and the sharing of opinions and perspectives, expressed publicly. The relationship established between expressions of memory and the tangibility afforded by photography contains enduring elements that become a source of information and reflection.

Thus, the following objectives were defined: i) to identify artistic sensibilities in students on initial teacher training programmes through a project involving photographic documentation, and ii) to reflect on the socio-cultural and artistic interpretations that this photographic documentation facilitates. Using the qualitative methodology of participatory photography, social education students were challenged to create photographic records in nearby communities and to develop a narrative around them.

#### Keywords

- street art
- photographic narratives
- social dynamics
- initial training

This potential for socio-artistic analysis through visual language identified interpretative sensibilities, prompted reflections and enabled moments of sharing and dialogue amongst the students. The capture of preserved moments informs, communicates and democratises through the image; it values artistic and cultural aspects and raises awareness among all individuals of a relationship with communities through interaction and participation, recognizing that all aesthetic and artistic expressions are to be valued, embraced and enjoyed.

### Leituras na urbanidade: arte de rua e dinâmicas sociais (re)interpretadas – as sensibilidades artístico-culturais dos estudantes de educação social

O espaço urbano contemporâneo e a sua dinâmica quotidiana, cada vez mais intensa, abrange potencialidades simbólicas e interpretativas que refletem vivências particulares, tanto individuais como coletivas. Através dessas leituras, uma oportunidade de analisar produções e visões artísticas, registos culturais e etnográficos, tensões estéticas, mas igualmente manifestações de um poder social assumido pelas manifestações artísticas da arte de rua, numa comunicação e partilha de opiniões e visões, expressos publicamente. A relação que se estabelece entre as expressões de memória com a tangibilidade permitida pela fotografia contém elementos perpetuados que se tornam fonte de informação e reflexão. Assim, se definiram os objetivos: i) identificar sensibilidades artísticas nos estudantes, da formação inicial, através de uma proposta de registos fotográficos e, ii) refletir sobre as leituras socioculturais e artísticas que esses registos fotográficos proporcionam. Com recurso à metodologia qualitativa de fotografia participativa, foi dirigido aos estudantes de educação social o desafio de realizar registos fotográficos em comunidades próximas e a sua narrativa. Esta potencialidade de análise socio-artística pela linguagem imagética identificou sensibilidades interpretativas, propôs reflexões e permitiu momentos de partilha e de diálogo, entre os estudantes da formação inicial. A captação de momentos preservados informa, comunica e democratiza pela imagem, valoriza aspetos artístico-culturais e consciencializa todos os indivíduos para uma relação com as comunidades pela interação e pela participação, pelo reconhecimento de que todas as manifestações estético-artísticas são de valorizar, de assumir e de usufruir.

#### Palavras-chave

- arte de rua
- narrativas fotográficas
- dinâmicas sociais
- formação inicial

### Pedagogical supervision in inclusive education: contributions to the development of collaborative practices among teachers

Inclusive education has become a guiding principle of educational policies, requiring pedagogical practices capable of responding to students' diversity and promoting the participation of all learners in school contexts. In this framework, pedagogical supervision emerges as a relevant mechanism for teachers' professional development and for the promotion of collaborative practices among educators.

This study aims to analyse how pedagogical supervision can contribute to improving collaborative practices between mainstream teachers and special education teachers within the context of inclusive education.

The research is grounded in an interpretative paradigm and adopts a qualitative methodological approach. Data will be collected through questionnaires and semi-structured interviews with primary school teachers and special education teachers, seeking to understand their perceptions regarding collaboration and supervision processes in school contexts.

"The findings are expected to provide insights into the practices, perceptions, and challenges associated with collaborative supervision, contributing to a deeper understanding of the role of pedagogical supervision in promoting more inclusive educational environments.

It is anticipated that joint reflection on practice and collaboration among teachers may represent important factors in the development of more inclusive and context-responsive educational practices.

#### Keywords

- pedagogical supervision
- inclusive education
- teacher collaboration
- professional development
- educational practices

### Supervisão pedagógica na educação inclusiva: contributos para o desenvolvimento de práticas colaborativas entre docentes

A educação inclusiva constitui atualmente um princípio orientador das políticas educativas, exigindo práticas pedagógicas capazes de responder à diversidade dos alunos e promover a participação de todos no contexto escolar. Neste quadro, a supervisão pedagógica assume-se como um dispositivo relevante para o desenvolvimento profissional docente e para a promoção de práticas colaborativas entre professores.

O presente estudo tem como objetivo analisar de que forma a supervisão pedagógica pode contribuir para a melhoria das práticas colaborativas entre docentes do ensino regular e docentes de educação especial, no âmbito da promoção de uma escola inclusiva.

A investigação enquadra-se num paradigma interpretativo e adota uma abordagem metodológica de natureza qualitativa. A recolha de dados será realizada através da aplicação de questionários e da realização de entrevistas semiestruturadas a docentes do 1.º ciclo do ensino básico e docentes de educação especial, procurando compreender as suas perceções relativamente aos processos de colaboração e supervisão no contexto escolar.

Os resultados esperados deverão fornecer contributos para a compreensão das práticas, perceções e desafios associados à supervisão colaborativa, contribuindo para um entendimento mais aprofundado do papel da supervisão pedagógica na promoção de ambientes educativos mais inclusivos.

#### Palavras-chave

- supervisão pedagógica
- educação inclusiva
- colaboração docente
- desenvolvimento profissional docente
- práticas educativas

Conclui-se que a reflexão conjunta sobre as práticas e a colaboração entre docentes podem constituir fatores relevantes para o desenvolvimento de respostas educativas mais inclusivas e contextualizadas.

### Poverty in Portugal: A Decade and a Half of Evolution

The Troika's intervention in Portugal (2011) marked an important turning point, reflected in the rise in the poverty rate (PR) adjusted for pensions and social transfers (from 17.9% in 2011 to 18.7% in 2012). Despite the 15.4% rate in 2024, poverty remains a persistent and complex social issue. We analyzed the evolution of the PR in Portugal over the 15-year period, 2010 to 2024, based on a descriptive and inferential analysis of data available in PORDATA. The results of the log-linear regression showed an annual percentage change of -1.16% (p=.0016) during this period, with four join points identified: 2010–14, with an upward trend of .53%/year (18% to 19.5%), the worst point in the social situation; 2014–19, the most successful period, with a continuous and sharp decline to 16.2% (-0.65%/year), following stability in 2014; 2019–20, with a new increase of 2.2% per year (from 16.2% to 18.4%), constituting a breaking point caused by an external event (the pandemic), reversing years of progress in 12 months; 2022–24, with a decline of 0.58% per year, during which the indicator fell consistently again, reaching its lowest value for the period in 2024 (15.4%). If this trend continues, the estimate for 2025 is 15%, but 2026 may bring a new setback because of the current global political crisis and natural disasters in Portugal. Despite improvements, the persistence of high levels of deprivation, inequality, and

#### Keywords

- poverty
- social exclusion
- Sustainable Development Goals (SDGs)

job insecurity shows that poverty in Portugal continues to require integrated, redistributive, and preventive public policies focused on social protection, work valorization, and territorial cohesion, in line with the SDGs, particularly the eradication of poverty and the reduction of inequalities.

### Pobreza em Portugal: Década e meia de evolução

A intervenção da Troika em Portugal (2011) representou um marco importante, com reflexos na subida da taxa de pobreza (TP) corrigida pelas pensões e transferências sociais (de 17,9%, em 2011 para 18,7%, em 2012). Não obstante os 15,4% de 2024, a pobreza permanece como uma questão social persistente e complexa. Analisou-se a evolução da TP, em Portugal na década e meia de 2010-2024, a partir de uma análise descritiva e inferencial de dados disponíveis na PORDATA. Os resultados da Regressão Log-linear evidenciaram uma Variação Percentual Anual de -1,16% (p=.0016) durante o período considerado, tendo sido identificados 4 joinpoint: 2010-14, com tendência crescente de .53%/ano (18% para 19,5%), pior momento da situação social; 2014-19, período de maior sucesso, com descida contínua e forte para 16,2% (-.65%/ano), após estabilidade em 2014; 2019-20, com nova subida de 2,2%/ano (16,2% para 18,4%), constituindo um ponto de rutura causado por evento externo (pandemia), revertendo anos de progresso em 12 meses; 2022-24, com recuperação de -.58%/ano, em que o indicador voltou a cair de modo consistente, atingindo o valor mais baixo do período em 2024 (15,4%). A manter-se esta tendência, a estimativa para 2025 é de 15%, mas 2026 pode trazer um novo revés, em consequência da crise política mundial atual e das catástrofes naturais em Portugal. Não obstante as melhorias, a persistência de elevados níveis de privação, desigualdade e precariedade laboral mostram que a pobreza em Portugal continua a exigir políticas públicas integradas, redistributivas e preventivas, orientadas para a proteção social, valorização do trabalho e coesão territorial, em linha com os ODS, nomeadamente a erradicação da pobreza e a redução das desigualdades.

#### Palavras-chave

- pobreza
- exclusão social
- Objetivos de Desenvolvimento Sustentável (ODS)

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### Inclusive Education and Artificial Intelligence: Perceptions and Training in Socio-educational Contexts

Inclusive Education (IE) is a key priority in contemporary Socio-Educational (SE) contexts, emphasising equity, participation, and democratic citizenship. Meanwhile, the growing integration of Artificial Intelligence (AI) and digital technologies is reshaping educational practices, raising new opportunities and challenges for inclusive and ethically grounded learning environments.

This communication aims to present the conceptual and methodological framework of a collaborative research project

developed within the CI&DEI research network, focusing on IE and the use of AI in SE contexts. It also seeks to share early insights emerging from the initial data collection phase and to raise discussion on how training processes support inclusive, digitally mediated practices.

The study adopts a mixed-methods, exploratory-descriptive design, integrating a research-training approach. Data are being collected through online questionnaires administered before and after training actions involving educators, teachers, researchers and other SE professionals. Quantitative data will be analysed using descriptive and inferential statistics, while qualitative data will be examined through thematic content analysis.

Data collection is currently ongoing. Preliminary indications suggest diverse levels of familiarity with AI and varied perspectives on its role in IE, reinforcing the importance of shared reflection and structured professional learning opportunities.

The communication seeks to contribute to ongoing discussions on the relationship between AI, inclusion, and citizenship in education, while fostering shared reflection and dialogue on collaborative approaches to knowledge production and professional development in SE contexts.

#### Keywords

- artificial intelligence
- inclusive education
- digital technologies
- teacher education
- socio-educational contexts

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### Student Perspectives on Inclusion and Interculturality in Higher Education: Impacts of Universal Design for Learning

Inserted into a society marked by liquid modernity, characterized by increasing cultural, social, and ability diversity, this study analyzes higher education students' perceptions of inclusion and interculturality in pedagogical practices guided by Universal Design for Learning (UDL). The intervention focuses on planning, implementing, and evaluating curricular units in Education, based on a theoretical framework connecting UDL, the Pedagogy of Dignity, the Pedagogy of Autonomy and the OECD Teaching and Learning Compass. The study aims to analyze students' perceptions of inclusion and interculturality in UDL-oriented practices, assess how UDL promotes participation, autonomy, and critical engagement, investigate its impact on creating inclusive and diverse learning environments, contribute to preparing future teachers to act reflectively and ethically in diverse contexts, and highlight the role of inclusive practices in promoting equity and social transformation through education. The curriculum is conceived as a dynamic, co-constructed space sensitive to diversity, fostering flexible, accessible, and participatory practices. Methodologically,

a qualitative Action-Research approach was adopted, with data collected through semi-structured interviews with eight students who actively participated in the learning process. Results indicate that UDL enhances student participation, autonomy, and critical engagement, while fostering more inclusive and intercultural learning environments. The findings suggest that integrating UDL principles supports reflective and ethical teaching practices, preparing future educators to navigate diverse educational contexts effectively.

#### Keywords

- Universal Design for Learning (UDL)
- Higher Education
- inclusion
- interculturality
- student participation

### Olhares Estudantis sobre Inclusão e Interculturalidade no Ensino Superior: Impactos do Desenho Universal para a Aprendizagem

Inserido numa sociedade marcada pela modernidade líquida caracterizada pela crescente diversidade cultural, social e de capacidades, este estudo analisa as perceções de estudantes do ensino superior sobre inclusão e interculturalidade em práticas pedagógicas orientadas pelo Desenho Universal para a Aprendizagem (DUA). A intervenção incide na planificação, implementação e avaliação de uma unidade curricular na área da Educação, com base numa matriz teórica que articula o DUA, a Pedagogia da Dignidade, a Pedagogia da Autonomia e o Teaching and Learning Compass.

O estudo pretende analisar as perceções dos estudantes sobre inclusão e interculturalidade em práticas orientadas pelo DUA, avaliar de que forma o DUA promove participação, autonomia e envolvimento crítico, investigar o seu impacto na criação de ambientes de aprendizagem inclusivos e diversos, contribuir para a formação de futuros professores capazes de atuar de forma reflexiva e ética em contextos educativos variados e destacar o papel das práticas inclusivas na promoção da equidade e da transformação social através da educação.

O currículo é concebido como um espaço dinâmico, coconstruído e sensível à diversidade, promovendo práticas flexíveis, acessíveis e participativas. Metodologicamente, adotou-se uma abordagem qualitativa de Investigação-Ação, com recolha de dados através de entrevistas semiestruturadas a oito estudantes que participaram ativamente no processo formativo.

Os resultados indicam que o DUA potencia a participação, autonomia e envolvimento crítico dos estudantes, promovendo simultaneamente ambientes de aprendizagem mais inclusivos e interculturais. Os dados sugerem que a integração dos princípios do DUA apoia práticas pedagógicas reflexivas.

#### Palavras-chave

- Desenho Universal para a Aprendizagem
- inclusão
- interculturalidade
- participação dos estudantes
- Ensino Superior

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### Informal Dynamics in Collaborative Networks Addressing Child Poverty in Belgium

As situations of family and child poverty grow increasingly complex, marked by overlapping and cumulative vulnerabilities,

the non-profit sector in the Fédération Wallonie-Bruxelles (Belgium) tends to organise itself into plural, even cross-sectoral networks (Cultiaux, 2018; Fastrès, 2009; Bartholomé, 2007), in order to provide holistic support to vulnerable families and limit the intergenerational transmission of poverty (Lahaye et al., 2020). It is within this context that a qualitative study was conducted between 2024 and 2025 with 14 organisations addressing child poverty, through focus groups and targeted interviews with managers and coordinators within these structures. The study aimed to analyse the dynamics of network-based collaboration, as well as to identify the barriers and enabling factors for cooperation between actors from different sectors, with a view to improving the support provided to vulnerable families.

The thematic analysis highlights five structural tensions that run through collaborative networks: diverging stakes between services, the management and circulation of information among the actors involved, the high turnover rate within the social intervention field, sector-specific timelines (Bouquet, 2011) and procedural constraints, and the beneficiary's own trajectory, whose level of engagement can influence the continuity of the provided support. The findings further underscore that the fluidity of these intervention networks and the regulation of these tensions rely heavily on informal ties grounded in interprofessional trust (Schweyer, 2005), dynamics that remain largely unrecognised at the institutional level, yet prove indispensable to the coordination of the various actors involved.

#### Keywords

- child poverty
- social inclusion
- networking
- cross-sectoral collaborations
- informal dynamics

**The Use of Technology and Screen Exposure in Young People’s Digital Well-Being: A Comparative Analysis of Pupils’ and Parents’ Perceptions**

Widespread access to digital devices has reshaped how young people spend their time in leisure, socialising and learning, becoming a determining factor in their biopsychosocial balance and requiring an innovative educational approach to support their digital well-being. To compare the perceptions of middle school pupils and of parents/guardians regarding digital habits, and to identify areas of risk and needs for intervention, a descriptive quantitative study was carried out with 103 participants: 63 pupils (predominantly from the Junior High, mostly female) and 40 parents/guardians (predominantly aged 35–39, mostly female). The questionnaires focused on exposure time, safety and parental mediation. The data suggest a difference in perceptions between the groups regarding screen exposure: over 25% of pupils admit to being online for more than six hours at the weekend, while only 12.5% of parents/guardians estimate that duration. Regarding digital well-being, 25% of pupils totally agree that they go online when they feel lonely and more than 25% report

**Keywords**

- digital well-being
- digital habits
- parental mediation
- middle school pupils
- quantitative study

sleep difficulties due to online experiences. Over 40% of young people have felt upset by digital content, preferring parental support for protection, a view that is similarly held by parents/guardians. Concerning mediation, although 90% of parents/guardians state they set rules, 40% of pupils report that there are no restrictions. The school thus becomes crucial as a place of critical literacy that fosters intergenerational dialogue, equips pupils to self-regulate their digital behaviours, and promotes responsible participatory citizenship in developing solutions that enhance digital well-being.

**O Uso da Tecnologia e a Exposição aos Ecrãs no Bem-Estar Digital dos Jovens - Uma Análise Comparativa entre as Perceções dos Alunos e Encarregados de Educação**

O acesso generalizado a dispositivos digitais tem redefinido a ocupação dos jovens nas dinâmicas de lazer, socialização e aprendizagem, tornando-se um fator determinante no equilíbrio biopsicossocial, exigindo uma abordagem educativa inovadora em prol do seu bem-estar digital. Com o objetivo de comparar a percepção de alunos do 2.º e 3.º CEB e dos Encarregados de Educação (EE) sobre hábitos digitais, que identificasse áreas de risco e necessidades de intervenção, realizou-se um estudo quantitativo descritivo com 103 participantes: 63 alunos (maioritariamente do 3º ciclo, do género feminino) e 40 EE (maioritariamente, dos 35-39 anos, do género feminino). Os questionários aplicados focam o tempo de exposição, a segurança e a mediação parental. Os dados sugerem uma diferença de percepção das populações, relativamente à exposição aos ecrãs: mais de 25% dos alunos admitem estar online mais de 6 horas ao fim de semana, enquanto apenas 12,5% dos EE estimam essa duração. No âmbito do bem-estar digital, 25% dos alunos concordam totalmente que ficam online quando se sentem sós e mais de 25% indicam dificuldades no sono devido a vivências online. Mais de 40% dos jovens já se sentiram incomodados com conteúdos digitais, privilegiando o apoio dos pais na sua proteção, sendo percecionado da mesma forma por estes. Quanto à mediação, embora 90% dos EE afirmem impor regras, 40% dos alunos declaram não existir qualquer restrição. Torna-se, assim, preponderante o papel da escola, ao assumir-se como um espaço de literacia crítica indutora do diálogo entre gerações, que capacite os alunos para a autorregulação de comportamentos digitais, e para uma cidadania participativa responsável na construção de soluções promotoras do bem-estar digital.

**Palavras-chave**

- bem-estar digital
- hábitos digitais
- mediação parental
- alunos do 3.º CEB
- estudo quantitativo

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**Innovation and Community Problem-Based Learning: A Case Study in a Rio de Janeiro Favela**

This study analyzes a pedagogical experience in a public school located in a socially vulnerable community in Rio de Janeiro. The objective of this article is to analyze the contributions of a pedagogical experience based on the STEM approach using a Community Problem-by-Learning (CPbL) methodology. The study sought to understand how students relate global problems to local challenges, analyze the development of student leadership, and identify learning related to critical thinking and collaborative work. All activities were developed in an interdisciplinary manner, where students have the freedom to develop their projects under the teacher’s guidance. The generating problem was “Clean and Accessible Energy for our Favela.” Its development was carried out by 9th-grade students. The activities involved guided research, simulated public hearings, community data collection, graphic analysis, and prototyping solutions in a maker environment, with formative assessment through rubrics, portfolios, and public presentations. A qualitative approach was adopted for the treatment of these data, employing the action research methodology. The results show increased student engagement, development of critical thinking, improved argumentation skills, and a strengthened sense of belonging and citizenship. It was observed that the approach enabled the articulation between the school curriculum, social reality, and the meaningful use of technology. The study indicates that pedagogical intentionality and student protagonism are central elements for educational innovation in contexts of social vulnerability.

**Keywords**

- community problem-based learning
- STEM
- PBL
- citizenship

**Inovação e Aprendizagem baseada em Problemas da Comunidade: um estudo de caso numa favela do Rio de Janeiro**

Este estudo analisa uma experiência pedagógica numa escola pública situada numa comunidade em situação de vulnerabilidade social do Rio de Janeiro. O objetivo deste artigo é analisar as contribuições de uma experiência pedagógica baseada na abordagem STEM a partir de uma metodologia Pbl baseada em problemas da comunidade (CPbL). Buscou-se: compreender como os alunos relacionam problemáticas globais a desafios locais, ao analisar o desenvolvimento do protagonismo estudantil e identificar aprendizagens relacionadas ao pensamento crítico e ao trabalho colaborativo. Todas as atividades foram desenvolvidas de forma interdisciplinar, onde os estudantes possuem a liberdade de desenvolver seus projetos sob a orientação dos professores. O problema gerador foi “Energia Limpa e Acessível para nossa favela”. Seu desenvolvimento foi realizado por alunos do 9º ano. As atividades envolveram pesquisa orientada, simulação de audiência pública, levantamento de dados na comunidade, análise gráfica e prototipagem de soluções em ambiente maker, com avaliação formativa por meio de rubricas, portfólios e apresentações públicas. Esses dados foram tratados de forma qualitativa, utilizando a metodologia da pesquisa-ação. Os resultados evidenciam aumento do engajamento dos estudantes, desenvolvimento do pensamento crítico, melhoria da capacidade argumentativa e fortalecimento do senso de pertencimento e de cidadania. Observou-se que a abordagem possibilitou a articulação entre o currículo escolar, a realidade social e o uso significativo das tecnologias. O estudo aponta que a intencionalidade pedagógica e o protagonismo discente são elementos centrais para a inovação educacional em contextos de vulnerabilidade social.

**Palavras-chave**

- aprendizagem baseada em problemas da comunidade
- STEM
- PBL
- cidadania

### Themes and trends in the scientific production on Brazilian women's football: a scoping review

This scoping review aims to analyze the main themes and trends in research on Brazilian women's football, identify predominant thematic areas, and examine gaps and investigative opportunities. To this end, a systematic search was conducted across five

databases (Eric, Scielo, PubMed, Portal Capes, and Scopus), following the PRISMA-ScR protocol and using eligibility criteria based on the PCC mnemonic (Population, Context, and Concept), resulting in the analysis of 43 articles. The results indicate a higher concentration of studies in the area of Sociology and Gender, with 16 articles, followed by Media Analysis and Communication, with 14 productions. Next, the areas of Performance (8 articles) and History, Challenges, and Development (7 articles) stand out. The themes of Professionalization and Psychology each appear with 4 studies, while Physiology, Injuries, and Public Policies show lower incidence, with 2 articles each. It is important

#### Keywords

- Brazilian women's football
- scoping review
- gender
- scientific production
- themes and trends

to note that some areas appear in combination across studies, meaning that a single article was counted in more than one thematic category, reflecting the interdisciplinary nature of the analyzed research. Critical gaps were identified in the areas of education and sports economics/management, which were not addressed in any of the analyzed studies. This leads to the conclusion that the field shows thematic consolidation around sociocultural issues, yet demands broader investigative scope in pedagogical and economicadministrative dimensions to support the sustainable development of the sport in the Brazilian context.

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### Temas e tendências na produção científica sobre futebol feminino brasileiro: uma revisão de escopo

Esta revisão de escopo objetiva analisar os principais temas e tendências nas pesquisas sobre futebol feminino brasileiro, identificar áreas temáticas predominantes e examinar lacunas e oportunidades investigativas. Para tanto, procede-se à busca sistemática em cinco bases de dados (Eric, Scielo, PubMed, Portal Capes e Scopus), seguindo o protocolo PRISMA-ScR e utilizando critérios de elegibilidade baseados no mnemônico PCC (População, Contexto e Conceito), resultando na análise de 43 artigos. Os resultados indicam uma maior concentração de estudos na área de Sociologia e gênero, com 16 artigos, seguida por Análise midiática e comunicação, com 14 produções. Em seguida, destacam-se as áreas de Performance (8 artigos) e História, desafios e desenvolvimento (7 artigos). As temáticas de Profissionalização e Psicologia aparecem com 4 estudos cada, enquanto Fisiologia, Lesões e Políticas públicas apresentam menor incidência, com 2 artigos cada. É importante destacar que algumas áreas aparecem de forma combinada nos estudos (como Psicologia / Sociologia e gênero), de modo que um mesmo artigo foi contabilizado em mais de uma categoria temática, refletindo o caráter interdisciplinar das pesquisas analisadas. Identificaram-se lacunas críticas nas áreas de educação e economia/gestão esportiva, que não foram contempladas em nenhum estudo analisado, o que permite concluir que o campo apresenta consolidação temática em questões socioculturais, porém demanda ampliação investigativa em dimensões pedagógicas e econômico-administrativas para subsidiar o desenvolvimento sustentável da modalidade no contexto brasileiro.

#### Palavras-chave

- futebol feminino brasileiro
- revisão de escopo
- gênero
- produção científica
- temas e tendências

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### Ludic-Pedagogical Material in Environmental Education: Raising Awareness of the Role of Bees in Ecosystems in Primary Education

This project is grounded in an empirical study supported by a literature review based on relevant scientific evidence concerning the topics under analysis. To this end, both national and international sources were consulted, namely scientific articles, theses, dissertations, internship reports, school curricula, and public documents, enabling the development of a robust state of the art that underpinned the design of the ludic-pedagogical material. This material was developed for 4th-grade pupils in primary education, within the subject area of Environmental Studies, with a focus on bee conservation and on understanding their role in maintaining ecosystem balance. In order to assess its pedagogical potential, the material was subjected to a multi-stage evaluation process.

In the initial phase, a pre-test was administered to 23 pupils from Centro Escolar da Sé, in Bragança, using a structured observation grid. The results obtained indicate a positive impact in terms of the participants' interest, engagement, and understanding of the content. The data collected support the conclusion that the game prototype has strong didactic-pedagogical potential, positioning it as a relevant resource for the promotion of Environmental Education in the school context.

#### Keywords

- pedagogical resources
- education
- environment
- playfulness
- sustainability

### Material lúdico-pedagógico em Educação Ambiental: sensibilização para o papel das abelhas nos ecossistemas no 1.º Ciclo do Ensino Básico

O presente projeto assenta num estudo empírico sustentado por uma revisão da literatura baseada em evidência científica relevante sobre as temáticas em análise. Para esse efeito, foram mobilizadas fontes nacionais e internacionais, designadamente artigos científicos, teses, dissertações, relatórios de estágio, programas escolares e documentos públicos, permitindo a construção de um estado da arte sólido que serviu de suporte ao desenvolvimento do material lúdico-pedagógico. Este material foi concebido para alunos do 4.º ano do 1.º Ciclo do Ensino Básico, no âmbito da disciplina de Estudo do Meio, com enfoque na conservação das abelhas e na compreensão do seu papel no equilíbrio dos ecossistemas. Com vista à avaliação do seu potencial pedagógico, o material foi submetido a um processo de

#### Palavras-chave

- recursos pedagógicos
- educação
- ambiente
- ludicidade
- sustentabilidade

análise em diferentes etapas. Numa fase inicial, procedeu-se à aplicação de um pré-teste a 23 alunos do Centro Escolar da Sé, em Bragança, com recurso a uma grelha de observação estruturada. Os resultados obtidos evidenciam um impacto positivo ao nível do interesse, do envolvimento e da compreensão dos conteúdos por parte dos participantes. Os dados recolhidos permitem concluir que o protótipo do jogo apresenta elevado potencial didático-pedagógico, configurando-se como um recurso pertinente para a promoção da Educação Ambiental em contexto escolar.

**Nature and Robots in Initial Early Childhood Teacher Education: Meaningful Practices of Educational Robotics and Environmental Education**

Direct experiences with nature in Early Childhood Education contribute to positive attitudes regarding nature across life spans (Chawla, 2020; Ernst et al., 2021). The explicit connection between nature experiences and sustainability in Early Childhood Education is, however, a relatively recent development (Elliott & Hughes, 2023). Also underdeveloped is the connection between environmental education and educational robotics (Figueiredo & Ferreira, 2024). Assuming an interpretative research paradigm (Cresswell, 2014), the study collected data through reports written by 20 initial teacher education students (all female) about their practicum. Namely, about the instances when they had explored the potential of educational robotics to enhance children’s nature-based experiences for environmental education purposes. Each report included teaching purposes, activities, resources, and evidence of children’s learning. The data was analysed using thematic content analysis. The emerging categories and the coding were checked independently by three researchers. Information about the study and a consent form were provided to all participants, and anonymity was assured. Participants could withdraw from the study at any time.

**Keywords**  
 → educational robotics  
 → environmental education  
 → early childhood education  
 → initial teacher education  
 → practicum

All participants found relevant didactical proposals for combining robotics and nature. In the reports, children’s well-being and engagement during the activities are highlighted, but the identification of learning in terms of environmental education was challenging. The robotics activities varied in topic (recycling, plants and animals, environmental problems) and role assigned to the robot, which was mainly a character in storytelling.

**Natureza e Robôs na Formação Inicial de Educadores de Infância: Práticas Significativas de Robótica Educativa e Educação Ambiental na Educação Pré-Escolar**  
 Em Educação Pré-Escolar, as experiências diretas com a natureza contribuem para atitudes positivas em relação à natureza ao longo da vida (Chawla, 2020; Ernst et al., 2021). A ligação explícita entre experiências de natureza e sustentabilidade na Educação Pré-Escolar é, contudo, um desenvolvimento relativamente recente (Elliott & Hughes, 2023). A ligação entre a educação ambiental e a robótica educativa também se encontra pouco desenvolvida (Figueiredo & Ferreira, 2024).

Assumindo um paradigma de investigação interpretativo (Cresswell, 2014), o estudo recolheu dados através de relatórios escritos por 20 estudantes de formação inicial de professores (todas do sexo feminino) sobre o seu estágio. Nomeadamente, sobre as instâncias em que exploraram o potencial da robótica educativa para potenciar as experiências das crianças baseadas na natureza para fins de educação ambiental. Cada relatório incluiu objetivos de ensino, atividades, recursos e evidências da aprendizagem das crianças. Os dados foram analisados através de análise de conteúdo temática. As categorias emergentes e a codificação foram verificadas de forma independente por três investigadores. Informações sobre o estudo e um formulário de consentimento foram fornecidos a todos os participantes e o anonimato foi garantido. Os participantes podiam retirar-se do estudo a qualquer momento. Todos os participantes encontraram propostas didáticas relevantes para combinar robótica e natureza. Nos relatórios, o bem-estar e o envolvimento das crianças durante as atividades são destacados, mas a identificação da aprendizagem em termos de educação ambiental revelou-se um desafio. As atividades de robótica variaram no tema (reciclagem, plantas e animais, problemas ambientais) e no papel atribuído ao robô, que foi principalmente uma personagem na narração de histórias.

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**Palavras-chave**  
 → robótica educativa  
 → educação ambiental  
 → educação de infância  
 → formação inicial de professores  
 → prática

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In an increasingly challenging world, it is crucial to educate active, informed citizens aware of the world around them, as well as to promote scientific literacy. Underlying scientific literacy is knowledge about the Epistemology and Nature of Science, namely the processes of constructing scientific knowledge and the profession of scientist, which, if not addressed from an early age, can transmit views of science that are radically different from reality. However, stereotypes regarding the profession of scientist continue to prevail, transmitted by the media. Based on this challenge, the project “Science and Scientists Through the Eyes of Children” aimed to contribute to the deconstruction of stereotypes surrounding science and scientists. The project was developed within the scope of a curricular unit of the Basic Education degree at the University of Aveiro, involving 22 students from the 4th grade of primary education. The project, with eight sessions and a final presentation, used the activity “For you, what is a scientist like in their workplace?” as its initial and final assessment, to determine students’ perceptions of the subject. The results revealed that the project had a positive impact on deconstructing various stereotypes related to the profession of scientist. In the initial test, students portrayed a scientist as a man with white hair, working in a laboratory, and wearing a white lab coat. In contrast, the final productions revealed a greater diversity of representations, indicating the deconstruction of these stereotypes. As a contribution, this work fosters a more realistic view of science and the profession of scientist.

**“A ciência e os cientistas aos olhos das crianças” - um projeto com o 4.º ano do 1.º CEB**

Num mundo cada vez mais desafiador, é crucial formar cidadãos ativos, informados e conscientes do mundo que os rodeia, bem como promover a literacia científica. Subjacente à literacia científica está conhecimento sobre a Epistemologia e a Natureza da Ciência, nomeadamente os processos de construção do conhecimento científico e a profissão de cientista, que, se não forem abordados desde cedo, podem transmitir visões da ciência muito diferentes da realidade. No entanto, os estereótipos relativos à profissão de cientista continuam a prevalecer, difundidos pelos meios de comunicação social. Partindo deste desafio, o projeto “A ciência e os cientistas aos olhos das crianças” teve como objetivo contribuir para a desconstrução de estereótipos associados à ciência e profissão de cientista. O projeto foi desenvolvido no âmbito de uma unidade curricular da Licenciatura em Educação Básica da Universidade de Aveiro, envolvendo 22 alunos do 4.º ano do 1.º CEB. O projeto, com oito sessões e uma apresentação final, utilizou a atividade “Para ti, como é um cientista no seu local de trabalho?” como avaliação inicial e final, para determinar as perceções dos alunos sobre o tema. Os resultados revelaram que o projeto teve um impacto positivo na desconstrução de vários estereótipos relacionados à profissão de cientista. No teste inicial, os alunos retrataram um cientista como um homem de cabelos brancos, que trabalha num laboratório e que usa uma bata branca. Em contraste, as produções finais revelaram uma maior diversidade de representações, indicando a desconstrução desses estereótipos. Como contribuição, este trabalho promove uma visão mais realista da ciência e da profissão de cientista.

**Palavras-chave**  
 → ciência  
 → cientista  
 → estereótipos  
 → 1.º CEB

**“Science and scientists through the eyes of children” - a project with 4th grade of primary education**

**Keywords**  
 → science  
 → scientist  
 → stereotypes  
 → primary education

### Learning Beyond Walls: Reframing Early Childhood Education through Urban Space

A formative experience was developed within the Master’s program in Early Childhood Education and Primary Education, challenging future professionals to conceive early childhood education as extending beyond the institution’s walls, viewing the city as a “third educator.” The framework is based in Place-Based Education (Sobel, 2004) and the Educating City perspective (Tonucci, 1996), in which urban space is not merely a setting but a living territory for learning. By exploring the city, the future educators analyzed the affordances (Gibson, 1979) of the environment—opportunities for action and discovery offered by squares, gardens, or streets. This proposal also sought to discuss perspectives on safety and risk, promoting autonomy and the child’s right to occupy public space as an active citizen (Corsaro, 2017). Thus, this formative experience aimed to transform the students’ perspectives, integrating urban heritage into the conception of pedagogical practice.

The proposal was implemented with two groups, totaling 48 students, all female. The products of the tasks included in the proposal were treated as data and analyzed through thematic content analysis, focusing on didactic perspectives, views of children, identification of affordances, and conceptions of risk. The results reveal a preference among students for green spaces and natural elements, despite the urban environment explored. The proposals encompassed few curricular contents, focusing instead on the group’s collective experience in public spaces and their connection to the territory. The underlying view of the child is that of an active agent and constructor of learning, albeit with an excessive avoidance of risk.

#### Keywords

- affordances
- early childhood education
- educating city
- initial teacher education
- children’s perspectives

### Para lá de portas: Reconfigurar a educação de infância através do espaço urbano

Foi desenvolvida uma experiência de formação no Mestrado em Educação Pré-Escolar e Ensino do 1.º Ciclo do Ensino Básico que desafiou as futuras profissionais a conceberem a Educação de Infância como transcendendo os muros da instituição, encarando a cidade como um “terceiro educador”. O enquadramento fundamenta-se na Pedagogia do Lugar (Sobel, 2004) e na visão de Cidade Educadora (Tonucci, 1996), onde o espaço urbano não é apenas cenário, mas um território vivo de aprendizagem. Ao explorarem a cidade, as futuras educadoras analisaram as affordances (Gibson, 1979) do meio — as oportunidades de ação e descoberta que praças, jardins ou ruas oferecem. Esta proposta pretendeu, ainda, discutir perspetivas sobre segurança e risco, promovendo a autonomia e o direito da criança à ocupação do espaço público como cidadã ativa (Corsaro, 2017). Assim, a experiência de formação visou transformar o olhar das estudantes, integrando o património urbano na conceção da prática pedagógica.

A proposta foi implementada por duas turmas, totalizando 48 estudantes, todas do sexo feminino. Os produtos das tarefas incluídas na proposta foram considerados como dados e analisados através de uma análise de conteúdo temática, focando perspetivas didáticas, perspetivas sobre as crianças, identificação de affordances e conceções de risco. Os resultados revelam preferência das estudantes por espaços verdes e por elementos naturais, apesar do espaço urbano explorado. As propostas abrangiam poucos conteúdos curriculares, focando mais a experiência coletiva do grupo em espaços públicos e a ligação ao território. A perspetiva de criança subjacente é de sujeito ativo e construtor de aprendizagem, mas com excessivo evitamento de risco.

#### Palavras-chave

- affordances
- cidade educadora
- educação de infância
- formação inicial de professores
- perspetivas das crianças

### Play and Creativity in Early Childhood Education: Tools and Ideas on the Evaluation of Conditions for Development

Playing and creativity have in common that a person is faced with an open situation of uncertainty, whether by constructing imaginary situations (Kravtsov & Kravtsova, 2019), or by solving non-standard problems (Craft, 2007; Veraksa, 2019). To analyse the conditions for play development and creativity in preschool classrooms, two ECERS-3 extensions were created: PERS- Play Environment Rating Scale and CERS- Creativity Environment Rating Scale (Shyan et al., 2025). The theoretical framework is a cultural-historical approach to play (Vygotsky, 1967; Pramling et al., 2019; Bredikyte, 2022). Both instruments assess quality on a 7-point scale (from unsatisfactory to excellent). Both scales have the potential to support overcoming the gap between the declaration of the importance of play and real practice. Adopting a qualitative-to-quantitative validation paradigm, the study aims to culturally adapt and validate the PERS and CERS for use in Portugal. It specifically seeks to ensure the scale’s items accurately reflect the pedagogical realities and environmental standards of Portuguese early childhood education settings. The phase reported utilised two distinct focus groups: one comprised of practising early childhood education teachers (n=5) and another of expert researchers in the field (n=3). Participants evaluated the scale’s semantic clarity, cultural relevance, and ecological validity. Preliminary results indicate high consensus on the scale’s structural dimensions and relevance. Participants also listed critical adaptations regarding the organisation of the educational environment and the need to deepen the cultural-historical approach to play to fully explore the scales.

#### Keywords

- play
- early childhood education
- creativity
- conditions for development
- quality evaluation

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### Perceived Motor Competence and School Readiness: Conceptual Pathways for the Early Identification of Developmental Coordination Difficulties

Perceived motor competence has emerged as an important construct influencing children’s engagement in movement-related tasks, persistence in challenging activities, and participation in educational contexts. However, its role within developmental coordination disorder (DCD) screening frameworks remains underexplored. This study aimed to conceptually examine the pathways linking perceived motor competence, actual motor competence, and school readiness indicators in early childhood. A narrative review of contemporary literature was conducted focusing on studies addressing motor competence, self-perceptions, school readiness, and developmental coordination difficulties in children aged 3–7 years. Evidence suggests that lower perceived motor competence may negatively affect participation in motor and graphomotor tasks, reduce task persistence, and mediate the relationship between actual motor competence and functional school performance. Furthermore, perceived motor competence may represent

#### Keywords

- perceived motor competence
- school readiness
- developmental coordination disorder
- early childhood
- inclusive education

an ecologically relevant construct for enhancing early educational identification of children at risk of DCD. These findings support the inclusion of perceived motor competence in multidimensional models of early developmental screening. Integrating this construct into educational assessment frameworks may improve the ecological validity of screening procedures and support more comprehensive preventive and inclusive intervention strategies.

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intersecting challenges. A United Nations report thus warns of an era of global water bankruptcy now upon us (Madani 2026), with sustainable water management declining worldwide (Van Dyck et al. 2026). The latter helps mitigate unprecedented harm to the global water cycle, impacting everything from livelihoods to food security.

Water-related intangible cultural heritage (ICH) – entailing various traditions and social and cultural practices and events (UNESCO, 2003) – can play a key role here. Yet threats to water ecologies and related generations-old wisdom (Human Right 2 Water, 2025; OHCHR, 2007) intersect with weakened ICH practice and transmission (UNESCO, 2026). We therefore aim to explore ways to harness communities’ full potential in co-creating, testing and sustaining tools to foster water-related ICH conducive to resilience building. We posit these should be inclusive and centre the very youngest in activities conducted with other generations.

Our methodology considers ICH tied to various types of water intertwined in the global water cycle as braided flows (Macfarlane, Derby & Macfarlane, 2024) and is early years education-driven, co-creative, intergenerational, community participation-based, and whole-bodily and digitally immersive (Cummings & Teal, 2023; Frizzo, 2024; Kukreja et al., 2025; Yücesan et al., 2023; Ødegaard et al., 2023).

Among results expected are a multidimensional assessment of water-related ICH and an inventory of innovative inclusive intergenerational co-creative early years education-centred approaches to ICH.

#### Keywords

- water-related heritage
- inclusion
- intergenerationality
- co-creation
- early years education

### Strengthening communities through inclusive early years-centered intergenerational leveraging of water-related intangible cultural heritage

Communities are increasingly suffering from the compounded effects of climate crises. Water is at the heart of many such

**The Presence of Pedagogical Silence as a Teaching Practice: the Case of Padre José Epifânio Gonçalves State School in Barra Longa, Minas Gerais, Brazil**

Mining stands out as a major economic activity in Brazil, particularly in the state of Minas Gerais; however, it has also generated significant socio-environmental impacts and risks, as evidenced by the collapse of the Fundão Dam. This study examines the manifestation of “pedagogical silence” (Hunzicker and Antunes-Rocha) in relation to the theme of mining at Padre José Epifânio Gonçalves State School, located in the municipality of Barra Longa, Minas Gerais, following the Fundão Dam collapse in 2015, which caused severe damage to the region. The study aims to investigate how the impacts resulting from mining activities have been addressed within the school context and to identify the presence of “pedagogical silence” as a teaching practice in schools located in mining regions along the Rio Doce basin. Methodologically, the research adopts a qualitative approach, combining a case study with a literature review based on scientific articles published between 2018 and 2024, sourced from Google Scholar, CAPES, and SciELO databases. The results indicate that teaching practices have often occurred in parallel with a “culture of silence”, marked by the

**Keywords**

- environmental education
- dam colapse
- mining
- pedagogical silence

absence of dialogue and the lack of voice among subjects, as well as by limited awareness and perception of the risks associated with the Fundão Dam collapse. It is concluded that it is essential to promote pedagogical approaches that foster dialogue and critical engagement with local realities in regions affected by mining activities, as a means of revitalising teaching practices and strengthening the lived experiences of individuals within their socio-environmental contexts.

**A presença do silêncio pedagógico como prática de ensino: o caso da Escola Estadual Padre José Epifânio Gonçalves, em Barra Longa, Minas Gerais, Brasil**

A atividade da mineração se destaca com grande desempenho econômico no Brasil especialmente no estado de Minas Gerais, entretanto o mesmo tem provocado muitos impactos, riscos ao seu entorno evidenciados com o Rompimento da Barragem de Fundão. Esse estudo refere-se à apresentação da prática do Silenciamento Pedagógico em relação à temática “Mineração”, na escola Estadual Padre José Epifânio Gonçalves, na cidade de Barra Longa, Minas Gerais, Brasil, após Rompimento da Barragem de Fundão (RBF) em 2015, que trouxe significativos danos para o município. Pretende-se investigar como os impactos resultantes desse setor foram abordados na instituição escolar e a ocorrência do “Silêncio Pedagógico” inserido como prática docente nas escolas da região minerária margeadas pela Bacia do Rio Doce. O estudo se pauta no âmbito da revisão bibliográfica, estudo de caso, de metodologia qualitativa contemplado por leituras de artigos científicos, publicados entre 2018 a 2024 no google acadêmico, no site da CAPES, SciELO. Os resultados demonstraram que a prática de ensino do professor ocorreu paralela ao discurso da “cultura do silêncio”, da “ausência do diálogo e voz dos sujeitos”, do desconhecimento dos mesmos e da impercepção do risco que estiveram submetidos junto ao rompimento da barragem de Fundão. Conclui-se que é fundamental promover metodologias pedagógicas que despertem o diálogo, problematização da realidade local nas regiões atingidas e impactadas pela atividade minerária como forma de revitalizar, revigorar o ensino e as vivências dos sujeitos diante a realidade, a qual se encontram.

**Palavras-chave**

- educação ambiental
- rompimento
- mineração
- silêncio pedagógico

**The ‘social spillover’ through school projects - Innovation for quality of life in rural environments**

Given the complexity of global socio-environmental challenges, scientific education must break down barriers in schools to promote sustainable development and community quality of life.

This study investigated how Community Problem-Based Learning (CPbL) empowers students in the early years of elementary school to analyze local issues and create solutions that transcend the school environment, generating innovation and ‘social spillover’.

This participatory action research, conducted with a multigrade class at a rural public school, was qualitative in approach. The educational action, grounded in the philosophies of Paulo Freire and John Dewey, was structured into five stages: 1) consolidating maker skills; 2) reading reality (finding problems); 3) ideation; 4) prototyping; and 5) social spillover. The investigative learning process allowed students to challenge the normalization of local adversities and identify issues such as inadequate solid waste management. The students moved beyond the initial view that problems can be solved by ‘magical technologies’, understanding that improving life requires collaboration and habit change. This engagement culminated in the planning, construction, and installation of a battery collector in the community, the result of a dialogic partnership between the school, residents, and researchers. The CPbL demonstrates that children can exercise active citizenship and discuss socio-environmental well-being from an early age. The ‘social spillover’ from the school promotes technologies and innovations that can translate into solutions with a positive impact on community dynamics and social transformation.

**Keywords**

- PbL
- multigrade education
- rural schools
- education for innovation
- education for sustainability

**O “transbordamento social” através de projetos escolares - Inovação para a qualidade de vida em ambientes rurais**

Diante da complexidade dos desafios socioambientais globais, a educação científica deve romper muros escolares para promover o desenvolvimento sustentável e a qualidade de vida comunitária.

Este estudo investigou como a Aprendizagem baseada em Problemas da Comunidade (CPbL) capacita estudantes dos anos iniciais do Ensino Fundamental a analisar problemas locais e criar soluções que transcendam o espaço escolar, gerando inovação e o “transbordamento social”. Esta pesquisa-ação participante de abordagem qualitativa, foi desenvolvida com uma turma multisseriada de uma escola municipal rural. A ação educativa, alicerçada em Paulo Freire e John Dewey, estruturou-se em cinco etapas: 1) consolidação de habilidades maker; 2) leitura da realidade (“garimpo” de problemas); 3) ideação; 4) prototipagem; e 5) transbordamento social. O processo de aprendizagem investigativo permitiu romper a naturalização das adversidades locais, identificando problemas como a gestão inadequada de resíduos sólidos. Os alunos superaram a visão inicial de que problemas se resolvem por “tecnologias mágicas”, compreendendo que a melhoria da vida exige colaboração coletiva e mudança de hábitos.

**Palavras-chave**

- PbL
- educação multisseriada
- escolas rurais
- educação para a inovação
- educação para sustentabilidade

Esse engajamento culminou no planejamento, construção e instalação de um coletor de pilhas na comunidade, fruto de uma parceria dialógica entre escola, moradores e pesquisadores. O CPbL comprova que crianças podem exercer a cidadania ativa e discutir o bem-estar socioambiental desde cedo. O “transbordamento social” a partir da escola impulsiona tecnologias e inovações que podem se traduzir em soluções de impacto positivo na dinâmica comunitária e em transformação social.

### Vocational training for refugees in Latin America: conflicts between the dreamed and the lived

More than 120 million people were forcibly displaced worldwide last year. These people face difficulties such as language barriers, a lack of diploma recognition, and restrictions on access to the formal labor market. In this context, entrepreneurship, especially in the food sector, has emerged as a relevant strategy for generating income and promoting social integration. This research aims to analyze how university extension, through a vocational training course in food production, can promote the productive inclusion of refugees, as well as the limitations and challenges that arise in this process. This is an ethnographic study complemented by semi-structured interviews. The results indicated a mismatch between the reality of refugees in Latin America today and the available vocational training programs. The most significant barrier observed was the participants' advanced age, as they already had

#### Keywords

- vocational training
- refugee
- University Extension

established professional identities and wished to integrate into the host country's reality while maintaining their original professions. This highlighted a mismatch between the proposed training programs and their effective appropriation by the participants. In conclusion, this experience contributes to understanding the challenges of promoting productive inclusion and the mismatch between aspirations for the future and the new reality.

### Formação profissional para refugiados na América Latina: conflitos entre o sonhado e o vivido

Mais de 120 milhões de pessoas estavam em situação de deslocamento forçado no último ano em todo o mundo. Essas pessoas enfrentam dificuldades, como barreiras linguísticas, falta de reconhecimento de diplomas e restrições ao acesso ao mercado formal de trabalho. Nesse contexto, o empreendedorismo, especialmente no setor de alimentação, tem se destacado como uma estratégia relevante para a geração de renda e para a integração social. A presente pesquisa tem como objetivo analisar como a extensão universitária, por meio de um curso de formação profissional em produção de alimentos, pode promover a inclusão produtiva de pessoas em situação de refúgio, bem como os limites e os desafios que se manifestam nesse processo. Trata-se de uma pesquisa de base etnográfica complementada por entrevistas semiestruturadas. Os resultados indicaram um descompasso entre a realidade dos refugiados na América Latina hoje e os programas de formação profissional disponíveis. A barreira mais significativa observada foi a idade avançada dos participantes, que já vinham com identidades profissionais consolidadas e desejavam se inserir na realidade do país de acolhimento, mantendo suas profissões de origem. Evidenciou-se, assim, um descompasso entre as propostas formativas e sua efetiva apropriação pelos participantes. Conclui-se que a experiência contribui para a compreensão dos desafios na promoção da inclusão produtiva e do descompasso entre os sonhos de futuro e a nova realidade vivenciada.

#### Palavras-chave

- formação profissional
- refugiados
- Extensão Universitária

### Contribution of STS-Based Didactic Resources to Scientific Literacy, Critical Thinking, and Cooperation in Basic Education

It is argued that scientific literacy, critical thinking, and cooperation in Basic Education should be strengthened through the use of STS-oriented didactic resources, given the growing demand for citizens capable of interpreting scientific information and making informed decisions in a technologically complex society. It aimed to implement and assess STS resources impact on Year 7 science portuguese students' scientific knowledge construction, critical thinking development, and cooperation.

An action-research cycle was conducted over five weeks, involving activities on continental drift/plate tectonics. Data collection included pre and post VOSTS questionnaire, students' written productions, a pre and post critical thinking Test, observation grids focused on cooperation indicators.

Findings revealed conceptual progression in students' STS conceptions, increasing in realistic responses, decreasing in acceptable and naïve ones. 83.7% of written productions indicated successful mobilisation of scientific knowledge. Critical thinking improved across assessed dimensions, with gains in Induction, Credibility, Deduction, and Identification of Assumptions. Improvements were not statistically significant according to SPSS v27 analyses (Independent t-test p=.200; Paired t-test p=.231). Cooperation indicators strengthened in group acceptance, constructive communication, integration of ideas, and reflective analysis.

Overall, the results confirm the pedagogical value of STS resources to enhance scientific learning, critical thinking, and cooperation in the science classroom.

#### Keywords

- STS approach
- critical thinking
- cooperation
- scientific literacy
- action Research

### Contributo de Recursos Didáticos de Orientação CTS para a Promoção da Literacia Científica, do Pensamento Crítico e da Cooperação no Ensino Básico

Defende-se o reforço da literacia científica, pensamento crítico e cooperação no Ensino Básico através da utilização de recursos didáticos CTS, dada a exigência de formar cidadãos capazes de interpretar informação científica e tomar decisões informadas numa sociedade tecnologicamente complexa. Pretendeu implementar e avaliar o impacto de recursos CTS na construção do conhecimento científico, no desenvolvimento do pensamento crítico e cooperação de alunos portugueses do 7.º ano, Ciências Naturais.

Foi conduzido um ciclo de investigação-ação ao longo de cinco semanas, envolvendo atividades sobre a deriva continental/tectónica de placas. A recolha de dados incluiu pré/pós questionário VOSTS, produções escritas dos alunos, um pré/pós teste de pensamento crítico, grelhas de observação centradas em indicadores de cooperação.

Os resultados revelaram uma progressão conceptual nas conceções CTS dos alunos, com um aumento das respostas realistas e uma diminuição das respostas aceitáveis e ingénuas. Verificou-se que 83,7% das produções escritas apontaram para a mobilização bem-sucedida de conhecimento científico. O pensamento crítico melhorou em todas as dimensões avaliadas, com ganhos em Indução, Credibilidade, Dedução e Identificação de Assunções. As

#### Palavras-chave

- educação CTS
- pensamento crítico
- cooperação
- literacia científica
- investigação-ação

melhorias não foram estatisticamente significativas segundo as análises realizadas no SPSS v27 (t-teste independente p=.200; t-teste emparelhado p=.231). Os indicadores de cooperação apresentaram melhorias na aceitação pelo grupo, comunicação construtiva, integração de ideias e análise reflexiva.

Os resultados confirmam o valor pedagógico dos recursos CTS para potenciar a construção do conhecimento científico, o desenvolvimento do pensamento crítico e a cooperação em sala de aula.

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### Artistic and Cultural Mediation in Schools: Contributions to the Analysis of the National Arts Plan

Artistic and cultural mediation has increasingly established itself in Portugal as an emerging field of educational practices, although it continues to be marked by a lack of recognition both professionally and institutionally. In this context, the National Arts Plan (Plano Nacional das Artes – PNA) presents itself as a structuring public policy by proposing an articulation between education and culture, promoting schools as educational cultural hubs and positioning arts education as a central axis within educational processes.

This paper presents the design of a research project aimed at analysing the role of the PNA in the reconfiguration of educational practices in school contexts, shifting the focus from a logic of outcomes assessment to an understanding of artistic and cultural mediation processes in action. The study focuses on schools that are partners of the PNA and is organised around three objectives: (i) to identify the pedagogical and cultural arrangements implemented within the framework of the programme; (ii) to characterise the dynamics of relationships and collaboration established among teachers, cultural mediators, artists, facilitators, and students; and (iii) to identify these actors’ perceptions of the educational and organisational transformations promoted by the implementation of the PNA.

Methodologically, the research adopts a mixed methods design. In a first phase, quantitative in nature, an extensive mapping of the arrangements developed in participating schools will be conducted, ensuring territorial representativeness. In a second phase, qualitative methodologies — namely participant observation and ethnographic field notes — will be employed in order to deepen case studies and capture the meanings attributed to mediation practices in educational contexts.

#### Keywords

- public policies
- transformation
- participation
- citizenship
- education

By presenting this analytical and methodological framework, the paper seeks to contribute to the debate in the field of education on the role of artistic and cultural mediation in the construction of integrative, inclusive, and territorially situated curricula, as well as to a critical reflection on the transformative potential of intersectoral educational policies.

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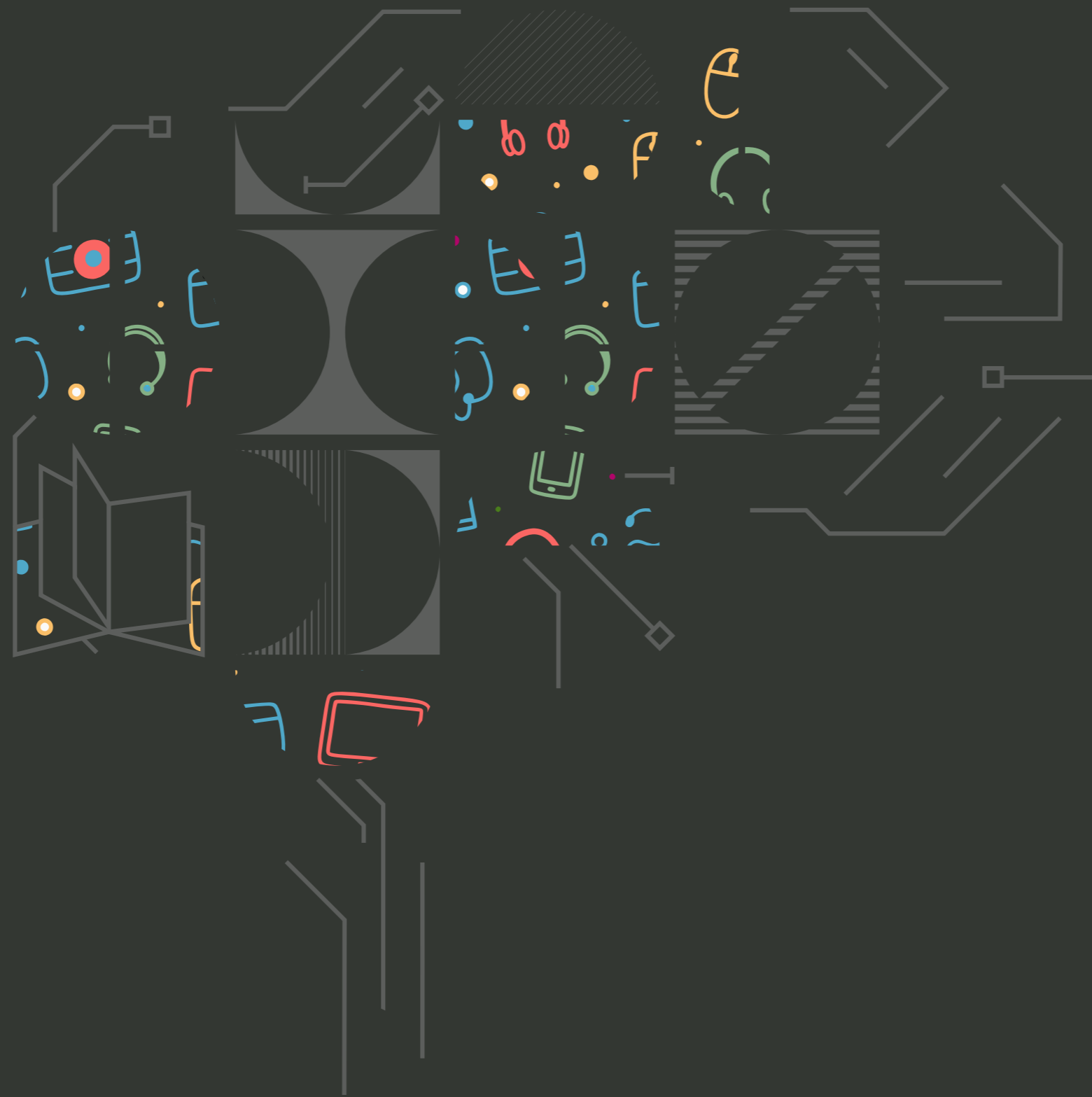
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### Between Access and Participation: Media Representations of Artistic and Cultural Mediation in Portugal

Artistic and cultural mediation is a complex concept that operates as a bridge between artworks and audiences while engaging broader dimensions of citizenship, participation, and meaning-making. It seeks to reconcile two cultural logics: the democratization of culture, focused on access to artworks, and cultural democracy, centered on citizens’ active participation and creative involvement. This study examines how artistic and cultural mediation is represented in common understanding through an analysis of Portuguese press articles published in 2021–2022. Using content analysis, 96 articles released on dates commemorating the arts were analyzed. The findings show that mediation is rarely mentioned explicitly; instead, participation, education, and creation are the most frequent terms. Concepts such as cultural democracy, aesthetic experience, and personal fulfillment are largely absent. Most articles focus on event promotion and provide limited reflection on the impact of culture on individuals. Media discourse is predominantly shaped by the logic of the democratization of culture, emphasizing access through free entry and decentralization, while transformative and participatory engagement remains marginal. Nevertheless, some concern with inclusion, audience diversity, and the social impact of culture can be identified. The study highlights a gap between academic discourse and common understanding, as well as an unclear comprehension of artistic and cultural mediation. It also points to the lack of attention given to the subjective dimension of artistic experience, including aesthetic enjoyment and personal transformation, and stresses the need to clarify mediation practices and the role of professionals in fostering a more participatory and inclusive cultural field.

#### Keywords

- artistic and cultural mediation
- democratization of culture
- cultural democracy
- participation



ICT and  
Multimedia in  
Education

TIC e Multimédia  
na Educação

## ICT and Multimedia in Education

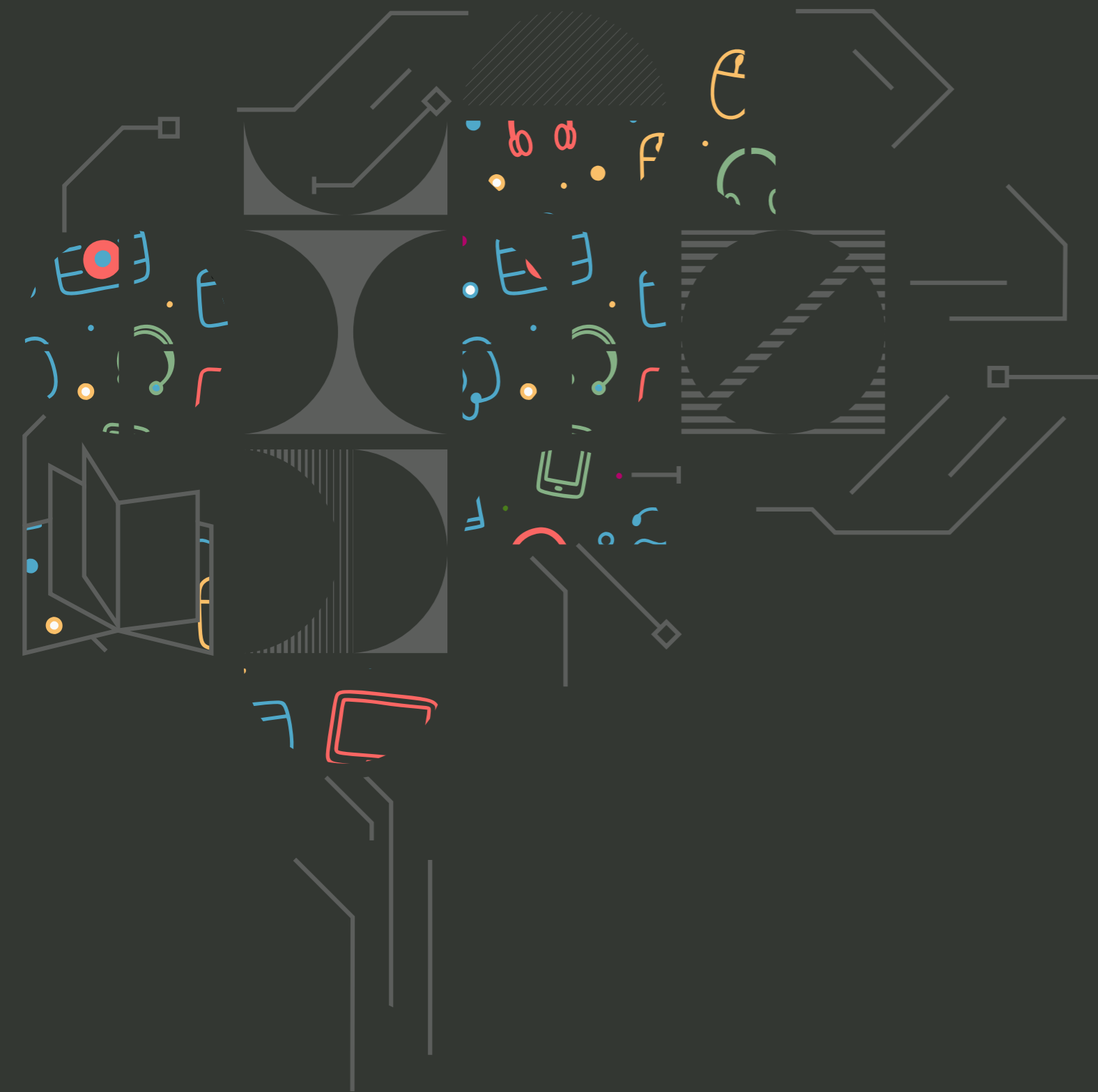
The abstracts included in the ICT and Multimedia in Education area reflect a rigorous and interdisciplinary engagement with contemporary issues in education, science communication, and the pedagogical use of digital technologies. Collectively, they demonstrate a sustained concern with the development of educational practices that are not only innovative, but also methodologically sound, contextually relevant, and grounded in a clear awareness of learners' needs. Across diverse educational settings, the contributions emphasise the importance of fostering meaningful learning through carefully designed and critically informed approaches.

A considerable number of the abstracts examine the educational potential of digital and multimedia resources. These include interactive audiovisual materials for chemistry laboratory preparation, the integration of ICT and music education through body percussion and multimedia creation, and the pedagogical possibilities of artificial intelligence in elementary education. Such studies underscore the view that technology should serve a purposeful educational function, supporting collaboration, learner autonomy, creativity, and differentiated instruction, while also requiring reflective and ethically responsible implementation.

Other contributions focus on the communication of complex scientific knowledge to non-specialist audiences. In particular, several abstracts address environmental themes, including urban stormwater management and freshwater biodiversity, and explore the use of interactive multimedia, WebVR, and user-centred design to enhance accessibility and public engagement. These approaches highlight the value of immersive and participatory formats in bridging the gap between specialised scientific information and broader citizen understanding.

Overall, the collection of abstracts presents a coherent and forward-looking portrait of current academic inquiry at the intersection of pedagogy, technology, and communication. It reflects a research agenda that is attentive to innovation, yet equally committed to educational quality, intellectual rigour, and social relevance.

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Multimedia in Education







### Enhancing chemistry laboratory readiness: Interactive pathways for meaningful student learning

**Introduction:** Preparing students for Chemistry laboratory sessions requires both conceptual understanding and familiarity with experimental procedures. However, effective preparation remains challenging and students are often insufficiently prepared before each laboratory session. This persistent gap reduces the impact of practical work, forcing instructors to review essential concepts that limit opportunities for practical training and deeper engagement. **Objective:** This study aims to evaluate the impact of self-developed interactive audiovisual materials within a flipped learning approach on student readiness and performance in Chemistry laboratory courses.

**Methodology:** The innovation was implemented in five undergraduate programmes (N = 224) across introductory and advanced laboratory sessions. Using the H5P platform, we designed a set of interactive resources (like virtual tours, quizzes and interactive videos) integrated into a flipped classroom structure. Students completed these materials before attending the lab. Learning outcomes were evaluated through laboratory exams, teachers' observations and satisfaction surveys.

**Results:** Students showed improved readiness and higher exam performance compared to previous courses. Test scores increased by 15 % and over 70% of students reported greater motivation due to the new system. First year students particularly benefited from this methodology, reporting higher confidence and autonomy in laboratory tasks.

#### Keywords

- chemistry
- H5P
- interactive learning
- formative assessment
- laboratory teaching

**Conclusion:** The integration of interactive digital resources within a flipped learning design was associated with improved readiness and performance in Chemistry laboratory sessions, highlighting the role of structured prelaboratory activities in enhancing student learning.

### Teachers' Digital Competences and Barriers to its use in a Public School in Alagoas, Brazil

The integration of technologies in education requires teachers to develop digital competences to promote active learning. This study aimed to investigate the level of teachers' digital competences and identify the main barriers faced in applying those competences in school. The methodology consisted of a mixed-methods case study in a public state school in Alagoas (Middle school, 1st to 3rd year), Brazil, involving 33 teachers. Data were collected through questionnaires based on the European digital literacy model for teachers DigCompEdu and semi-structured interviews with 4 teachers, analyzed under the PICRAT model of technology integration in class. Results showed that most teachers (45.5%) presented an intermediate level of digital competence, 30.3% a basic level, 15.1% a beginner level, and only 9.1% an advanced level. The main barriers identified were structural and formative, highlighting internet instability, insufficient equipment, and a lack of technical support and specific continuing education. It was concluded that the use of digital technologies in the classroom is directly affected by the teacher's digital literacy, but also by contextual and infrastructural barriers. Overcoming these challenges requires public policies for structural investment and continuous training programs, allowing technologies to effectively transform the teaching-learning process.

#### Keywords

- digital competencies
- teacher training
- educational technology
- teaching barriers
- DigCompEdu

### Competências Digitais Docentes e Barreiras ao seu uso em uma Escola Pública de Alagoas, Brasil

A integração de tecnologias na educação exige que professores desenvolvam competências digitais para promover a aprendizagem ativa. Este trabalho objetivou investigar o nível de competências digitais dos professores e identificar as principais barreiras enfrentadas para esse desenvolvimento. A metodologia consistiu em um estudo de caso de métodos mistos em uma escola pública estadual (1ª a 3ª série do Ensino Médio) de Alagoas, Brasil, com 33 professores. Os dados foram coletados via questionários baseados no modelo europeu de letramento digital para professores DigCompEdu e entrevistas semiestruturadas com 4 docentes, analisadas sob o modelo de integração de tecnologias em sala de aula do PICRAT. Os resultados mostraram que a maioria dos professores (45,5%) apresenta nível intermediário de competência, 30,3% nível básico, 15,1% iniciante e apenas 9,1% nível avançado.

#### Palavras-chave

- competências digitais
- formação de professores
- tecnologia educacional
- barreiras de ensino
- DigCompEdu

As principais barreiras identificadas foram estruturais e formativas, destacando-se a instabilidade da internet, insuficiência de equipamentos, carência de suporte técnico e de formação continuada específica. Concluiu-se que a aplicação de tecnologias digitais na sala de aula é diretamente afetado tanto pela questão do letramento digital, como por barreiras contextuais e de infraestrutura. Superar esses desafios exige políticas públicas de investimento estrutural e programas de formação contínua para que as tecnologias transformem efetivamente o processo de ensino-aprendizagem.

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### Interactive Multimedia Tools for Citizen Science Communication: Developments of Digital Resources in the URBA n WAt3r Project

Citizen science communication on urban stormwater management faces persistent challenges related to interactivity and accessibility of scientific information for non-specialist audiences. A comparative analysis of organisations focused on citizen science communication shows that most available digital resources are static and technically dense, limiting the public's understanding of scientific information. This study aims to develop and evaluate an interactive multimedia resource (IMR) designed to promote citizen science communication and engage the general public in discussions about urban stormwater management, inside of the project URBA n WAt3r (Urbanisation Risks to aquatic Biodiversity: An ecological perspective on nonpoint source pollution and stormWater management practices – ref. 2023.17531.ICDT). The IMR consists of a PDF enriched with educational animated videos covering various aspects of sustainable and unsustainable stormwater management. The evaluation was based on an adapted heuristic method, analysing multimedia, scientific, and pedagogical dimensions as proposed by Nielsen and Molich (1990) and Mankoff et al. (2003). Six specialists from multimedia, biology, and education explored the IMR and completed a

#### Keywords

- communication science
- digital resources
- citizen science
- environment literature

questionnaire comprising open and closed questions, including a severity scale from 0 to 4. Preliminary results indicate that the resource has significant communicative potential, although improvements are needed in linguistic appropriateness and pedagogical progression. It is concluded that interactive multimedia can act as an effective mediator between science and citizens, and that heuristic adaptation represents a valuable contribution to the evaluation of digital educational resources in citizen science contexts.

### Ferramentas Multimédia Interativas para Comunicação de Ciência Cidadã: Desenvolvimentos de Recursos Digitais no Projeto URBA n WAt3r

A comunicação em ciência cidadã sobre a gestão ambiental das águas pluviais enfrenta desafios persistentes relacionados com a interatividade e a acessibilidade da informação científica para públicos não especializados. A análise comparativa de diferentes entidades dedicadas à comunicação de ciência cidadã evidencia que os recursos digitais disponíveis são, na maioria, estáticos e tecnicamente densos, o que limita a compreensão da informação científica pelo cidadão comum. O presente estudo visa desenvolver e avaliar um recurso multimédia interativo (RMI) destinado a promover a comunicação de ciência cidadã e a envolver o público em geral na discussão sobre a gestão das águas pluviais urbanas, dentro do projeto URBA n WAt3r (riscos da Urbanização para a Biodiversidade Aquática: uma perspetiva ecológica sobre a poluição difusa e práticas de gestão de águas pluviais – ref. 2023.17531.ICDT). O RMI consiste num PDF enriquecido com vídeos animados educativos que abordam diversos aspetos da gestão (in) sustentável das águas pluviais. A avaliação recorreu a uma adaptação do método heurístico, analisando dimensões multimédia, científica e pedagógica propostas por Nielsen e Molich (1990) e Mankoff et al. (2003). Seis especialistas das áreas de multimédia, biologia e educação exploraram o RMI e responderam a um questionário composto por questões abertas e fechadas, incluindo uma escala de severidade de 0 a 4. Os resultados preliminares indicam que o recurso apresenta um potencial comunicativo relevante, embora tenham sido identificadas oportunidades de melhoria na adequação linguística e na progressão pedagógica. Conclui-se que a multimédia interativa constitui um mediador eficaz entre a ciência e os cidadãos, e que a adaptação de heurísticas representa um contributo valioso para a avaliação de recursos educativos digitais em contextos de ciência cidadã.

#### Palavras-chave

- ciência de comunicação
- recursos digitais
- ciência cidadã
- literacia ambiental

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### Artificial Intelligence and Intergenerational Learning: A Teaching Innovation Project to Address Ageism at the University of Salamanca (Spain)

The integration of artificial intelligence (AI) in education opens up new opportunities for collaborative learning and intergenerational dialogue. This paper presents a teaching innovation project

developed at the University of Salamanca (Spain) that brings together university students and older adults, while also addressing the issue of ageism in educational contexts. The aim of this study is to analyse the impact of an intergenerational AI course on relationships between generations, as well as to assess changes in younger students' perceptions of older adults and to capture the experiences of the latter. To this end, the project involved 10 senior learners aged over 60 from the Interuniversity Programme of the Experience at the University of Salamanca and 10 younger students enrolled in the degrees in History and Social Education.

A quantitative methodology was employed through a questionnaire designed to measure changes in attitudes and perceptions among participants from both generational groups. The results show a significant improvement in younger students' perceptions of older adults, highlighting a reduction in age-related stereotypes. In addition, older participants reported a highly positive experience, linked to technological learning and the recognition of their active role in the educational process.

The project demonstrates the potential of intergenerational initiatives to foster more inclusive relationships, promote mutual learning, and contribute to the reduction of ageism from a bidirectional perspective.

#### Keywords

- artificial intelligence
- intergenerational learning
- ageism
- educational innovation
- digital inclusion

### When Students Know What They Want but AI Doesn't Get It: Bridging Intention and Language in AI-Mediated Learning

The growing presence of artificial intelligence (AI) in education is reshaping how students use language, particularly in tasks that require communication with non-human agents. This study examines the gap between students' intended meanings and their ability to express those meanings effectively in AI-mediated tasks, with particular attention to language awareness and metacognitive reflection. The research is based on a project developed in an English for Specific Purposes course with undergraduate tourism students, who used AI image-generation tools to design culturally meaningful souvenirs. A qualitative approach was adopted, combining analysis of prompt iterations, pre- and post-project surveys, teacher observations, and focus group data. The findings suggest that students generally had clear ideas of what they wanted to create, but often struggled to translate those ideas into precise and detailed language. Focus group data show that many expected the AI to infer meaning from incomplete descriptions and only

became aware of the importance of specificity after encountering mismatches between what they had imagined and what the tool generated. Students also began to recognize that writing for AI differs from writing for humans, requiring more explicit, structured, and unambiguous language. These results highlight the pedagogical value of AI-mediated tasks not in the images produced, but in the reflective processes they trigger, particularly by making visible the relationship between intention, language, and meaning-making in foreign language learning.

#### Keywords

- AI in education
- language learning
- prompt writing
- metacognition
- ESP

### WebVR for Science Communication: A Framework-Based Approach for Citizen Science in the Aguieira Reservoir for the 2Qua project

Scientific literacy is essential for the sustainable management of inland water resources. However, complex hydrological data often remain inaccessible to the general public. Web-based Virtual Reality (WebVR) emerges as a promising approach to bridge this gap. This study presents the development of a WebVR prototype focused on the communication of scientific information related to the biodiversity of the Aguieira Reservoir, delivered through an immersive and interactive format.

The project follows a User-Centred Design (UCD) approach and proposes a prototype development framework structured around three domains: Conation (role-play and feedback), Information (simplicity and credibility), and Affection (expressiveness). The prototype incorporates 360° environments of the reservoir, enabling users to interact with bioindicators (e.g., Daphnia) and explore anthropogenic pressures (e.g., industrial and agricultural runoff). The evaluation is being conducted through Cognitive Walkthroughs involving

experts in education, biology, and multimedia, with the aim of assessing usability and scientific validity. Preliminary findings indicate that the framework may help reduce the psychological distance between citizens and freshwater-related issues. Interactive elements, such as a virtual Secchi disk, are expected to enhance user engagement through role-based exploration. The results will contribute to understanding how immersive design can improve the accessibility and intelligibility of complex environmental data.

#### Keywords

- WebVR
- science communication
- citizen science
- freshwater
- environmental education

### WebVR para a Comunicação de Ciência: Uma Abordagem Baseada numa Framework para Ciência Cidadã na Albufeira da Aguieira para o projeto 2Qua

A literacia científica é essencial para a gestão sustentável dos recursos hídricos interiores. No entanto, dados hidrológicos complexos permanecem frequentemente inacessíveis ao público em geral. A Realidade Virtual baseada na Web (WebVR) surge como uma abordagem promissora para colmatar esta lacuna. Este estudo apresenta o desenvolvimento de um protótipo WebVR focado na comunicação de informação científica relacionada com a biodiversidade da Barragem da Aguieira, num formato imersivo e interativo.

O projeto segue uma abordagem de Design Centrado no Utilizador (DCU) e propõe um modelo de desenvolvimento do protótipo estruturado em três domínios: Conação (role-play e feedback), Informação (simplicidade e credibilidade) e Afeto (expressividade).

O protótipo integra ambientes 360° da albufeira, permitindo aos utilizadores interagir com bioindicadores (ex.: Daphnia) e explorar pressões antropogénicas (ex.: escoamento industrial e agrícola).

A avaliação está a ser realizada através de Cognitive Walkthroughs, envolvendo especialistas das áreas da educação, biologia e multimédia, com o objetivo de avaliar a usabilidade e a validade científica.

#### Palavras-chave

- WebVR
- comunicação de ciência
- ciência cidadã
- água doce
- educação ambiental

Resultados preliminares indicam que o modelo poderá contribuir para reduzir a distância psicológica entre os cidadãos e as problemáticas relacionadas com a água doce. Elementos interativos, como o disco de Secchi virtual, deverão reforçar o envolvimento do utilizador através de exploração baseada em papéis (role-play). Os resultados contribuirão para a compreensão de como o design imersivo pode melhorar a acessibilidade e a inteligibilidade de dados ambientais complexos.

### BodyBeat: rhythmic body creation using multimedia

The BodyBeat project appears as part of an interdisciplinary initiative, based on the integration of the curriculum areas of Information and Communication Technologies (ICT) and Arts Education – Music.

According to the document Aprendizagens Essenciais do 1.º Ciclo do Ensino Básico (Essential Learning for the 1st Cycle of Basic Education), musical activities should be explored through certain elements, including rhythm. In turn, the ICT area involves the use of digital tools to present developed products. Thus, BodyBeat emerges as a project for creating and exploring the potential of body rhythm, using multimedia, in order to promote learning in both areas.

In this regard, bearing in mind the context of the 1st Cycle of Basic Education and in line with the learning objectives of this cycle, the project's core principles propose collaborative and interdisciplinary work, through the composition of short rhythmic structures followed by the creation of a digital product, with the main aim of demystifying the concept of musical creation, promoting the use of ICT and motivating children to engage with both areas.

#### Keywords

- music education
- multimedia
- body rhythm
- musical creation
- active learning

The implementation of technology-mediated music education practices seeks to establish a link between the two areas, in which each promotes learning in the other, with the child acting as the active agent in that learning process. It is, therefore, understood that the implementation of this project falls within the interpretative–constructivist paradigm, which emphasises the construction of meaning. Although it is still in a conceptual stage, BodyBeat's educational potential is clear, given its alignment with Essential Learning and its contribution to a creative approach to both areas.

### BodyBeat: criação rítmica corporal com recurso à multimédia

O projeto BodyBeat enquadra-se no âmbito de uma iniciativa interdisciplinar, fundamentando-se na articulação das áreas curriculares de Tecnologias da Informação e Comunicação (TIC) e de Educação Artística - Música.

De acordo com o documento Aprendizagens Essenciais do 1.º Ciclo do Ensino Básico, as atividades musicais deverão ser exploradas através de determinados elementos, entre os quais o ritmo. Por sua vez, a área das TIC prevê a utilização de ferramentas digitais para apresentar produtos desenvolvidos. BodyBeat surge, assim, como um projeto de criação e exploração do potencial da rítmica corporal, com recurso à multimédia, de modo a promover aprendizagens em ambas as áreas.

Nesta linha, tendo presente o contexto do 1.º Ciclo do Ensino Básico e indo ao encontro das aprendizagens deste ciclo, as linhas centrais do projeto propõem um trabalho colaborativo e interdisciplinar, através da composição de pequenas estruturas rítmicas com a posterior criação de um produto digital, tendo como principal objetivo desmistificar o conceito de criação musical, promover a utilização das TIC e motivar as crianças para trabalhar ambas as áreas.

A realização de práticas de educação musical mediadas pela tecnologia, vem propor uma articulação entre ambas as áreas, em que cada uma promove a aprendizagem da outra, sendo a criança o sujeito ativo dessa mesma aprendizagem. Entende-se, assim, que a implementação deste projeto se enquadra no paradigma interpretativo–constructivista, em que se valoriza a construção dos significados.

Embora ainda se encontre em fase de conceção, evidencia-se o potencial educativo de BodyBeat, dado o enquadramento nas Aprendizagens Essenciais e a sua contribuição para um olhar criativo sobre ambas as áreas.

#### Palavras-chave

- educação musical
- multimédia
- ritmo corporal
- criação musical
- aprendizagem ativa

### Developing Early Research and Academic Communication Skills through International Collaboration

In higher education, students are frequently expected to present academic work before they have had sufficient opportunities to engage in structured research processes. This paper examines how an international digital project-based learning experience supported the development of early research-related and academic communication skills among undergraduate students. The objective is to explore how scaffolded project tasks can help students move from classroom learning to inquiry-based academic practice. The project involved students from different countries in a sequence of activities including personal data collection through logs, online interviews, collaborative discussion, qualitative data comparison, abstract writing, poster design, and oral presentation in a virtual conference. Methodologically, the study is based on the analysis of the pedagogical design of the project and of the research-oriented tasks completed by students throughout the different phases. The findings indicate that participation in these activities helped students develop greater confidence in collecting and interpreting data, organizing information, collaborating across cultures, and communicating results to an international audience. The process also fostered greater awareness of how academic knowledge can be constructed through guided inquiry and shared discussion. The study suggests that international project-based learning can offer an accessible and motivating pathway for the development of early research competences in higher education.

#### Keywords

- project-based learning
- early research skills
- international collaboration
- academic communication
- higher education

### ICT and Multimedia in Education – Theories, Models and Applications in the Romanian Educational System

The integration of information and communication technologies (ICT) and multimedia into the Romanian educational system represents a fundamental transformation of teaching, learning, and assessment practices. Rooted in constructivist and connectivist learning theories, this study explores the pedagogical and psychosocial implications of using digital tools in pre-university and higher education. The analysis highlights the advantages, opportunities, and challenges of implementing ICT – emphasizing models of active and participatory learning, digital literacy development, and the promotion of long-term knowledge retention. Empirical examples illustrate how platforms such as Google Classroom, Moodle, Microsoft Teams, Kahoot!, and Canva can support adaptive, feedback-driven learning aligned with the current national curriculum. The research adopts a mixed-methods approach, combining a systematic review of recent literature (2019-2025) with qualitative and quantitative data collection. The empirical component is based on a survey administered to teachers and students from Romanian educational institutions, complemented by semi-structured interviews and classroom observations aimed at identifying patterns of ICT integration and perceived impact on learning outcomes. Data were analysed using descriptive statistics and thematic content analysis to capture both measurable trends and in-depth perspectives. The methodological framework is aligned with recent studies on digital education and technology-enhanced (Redecker, 2020; European Commission, 2021; OECD, 2023),

as well as research on post-pandemic digital transformation in education (Dhawan, 2020; Bozkurt et al., 2022). The findings indicate that ICT integration supports learner engagement, personalised instruction, and collaborative learning environments, while also revealing persistent challenges related to digital competences, infrastructure, and pedagogical adaptation. The paper concludes that digital pedagogy enhances educational quality, inclusion, and sustainability, provided that teachers acquire advanced digital competencies and integrate technology meaningfully into instruction (Selwyn, 2021; OECD, 2023).

#### Keywords

- ICT in education
- digital pedagogy
- multimedia learning
- digital competences
- blended learning

### Artificial Intelligence in Elementary Education: Tools, Pedagogical Potential, and Challenges

Introduction - Artificial intelligence (AI) is increasingly changing the education environment by supporting teaching, assessment, communication, and content creation. If we focus on elementary education, AI-based tools could help teachers reduce routine workload, improve lesson preparation, and create more personalised learning experiences. For students, these tools may provide adaptive support, immediate feedback, and differentiated learning opportunities across a range of domains.

Objectives - This study aims to examine the pedagogical potential of selected AI-related tools that can support the integration of AI into elementary teaching practices. It also pretends to identify the main educational areas in which these tools may be applied and to reflect on the challenges associated with their implementation in school contexts.

Methodology - The study adopts an exploratory and analytical methodology grounded in a TPACK-informed framework for evaluating AI-related educational tools in elementary education. The TPACK model is used as an analytical lens to examine the interaction between technology, pedagogy, and content, and to understand how their integration can enhance teaching and learning processes.

A qualitative documentary analysis was conducted on selected classroom-oriented AI tools used in elementary education. The analysis focuses on five main areas: general productivity, mathematics, language and literacy, music, and introductory computer science. Selected tools include MagicSchool AI, Eduaide.ai, Khanmigo, GeoGebra Math Solver, Ello, Suno, BandLab AI tools, and Code.org AI Lab. These tools were examined based on the three core TPACK dimensions: Technological Knowledge, Pedagogical Knowledge, and Content Knowledge.

Results - The analysis suggests that AI-related tools offer relevant possibilities for enhancing teaching and learning in elementary education. In particular, they may support lesson planning, content generation, adaptive feedback, creativity, and student participation in different curricular areas. However, we also need to highlight important constraints, including insufficient teacher training, limited AI literacy, ethical concerns, and infrastructural limitations. These challenges indicate that the successful use of AI in education depends not only on access to digital tools but also on an informed pedagogical decision-making scheme.

Conclusion - AI has significant potential to enrich elementary education when used critically, ethically, and with purpose. Its educational value lies not simply in technological innovation but in its capacity to support meaningful teaching and learning processes. By identifying concrete examples of AI-related tools and their possible uses, this study provides a structured basis for teachers and educators to reflect on how AI can be integrated into classroom practice in a pedagogically sound and equitable manner.

#### Keywords

- Elementary education
- AI tools

### Building an inclusive AI literacy in higher education ecosystems

Introduction: The rapid integration of generative Artificial Intelligence (AI) tools in higher education makes it necessary to develop digital literacy with new dimensions. This communication is part of a broader research project on the gender dimensions of AI use in higher education.

Goals: The two main goals are: i) to explain why understanding students' uses of AI is essential for building an inclusive AI literacy that extends inclusive digital literacy; ii) to create a prospective conceptual framework that supports the promotion of diversity, equity, and participation in academic ecosystems.

Methodology: A conceptual and analytical methodology is adopted, grounded in critical contributions from gender studies, social studies of technology in education, and theories of inclusive digital literacy. The three techniques used are: critical bibliographic mapping; construction of a conceptual and analytical framework; and reflective and prospective analysis.

Results and conclusion: The critical bibliographic mapping does not aim for exhaustiveness, but rather identifies conceptual tensions, gaps, and convergences that can help situate AI as a multimodal technology that can be simultaneously pedagogical and sociopolitical. The framework results from the analysis and systematization of the

authors' previous work and recent studies in the fields of gender, intersectionality, and educational technologies, as well as in critical and inclusive digital literacies, including their new dimensions shaped by Artificial Intelligence. Through reflective and prospective analysis, a forward-looking conceptual framework emerges, offering strategic guidance for research and intervention in building an inclusive AI literacy.

#### Keywords

- artificial intelligence
- higher education
- gender

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### Digital literacy in older adults: the role of emotions in technological learning

This paper presents the findings of a qualitative study aimed at analysing how individuals over the age of 65 in Portugal interact with digital technologies, identifying learning obstacles and the influence of emotional management on this process. The methodology was based on 60 semi-structured interviews, using content analysis (Bardin, 2016) and the software NVivo v. 14, providing a comprehensive insight into the training needs of this age group. The results primarily reveal that the mobile phone is the predominant device (94%), used mainly for communication and leisure through applications such as WhatsApp and Facebook. Although 71% of participants acknowledge that technology improves their quality of life, a significant educational gap exists: the majority have received no formal training, relying instead on informal networks such as family (47%) or friends (16%). From a pedagogical innovation perspective, the most relevant finding is the emotional dimension of learning. 55% of interviewees did not initially recognise the emotions linked to technology use. However, critical barriers such as fear (33%) and anxiety (27%) emerge. Besides, 47% of older adults express a need for training that is not purely technical, but includes strategies to manage frustration and anxiety. In conclusion, it is proposed that innovation in adult education must transcend instrumental literacy. It is essential to design digital literacy and digital competence development programmes for this age group that also incorporate the development of emotional skills. Only through a human-centred and emotionally conscious educational approach will it be possible to ensure true digital inclusion and the empowerment of older people within the network.

#### Keywords

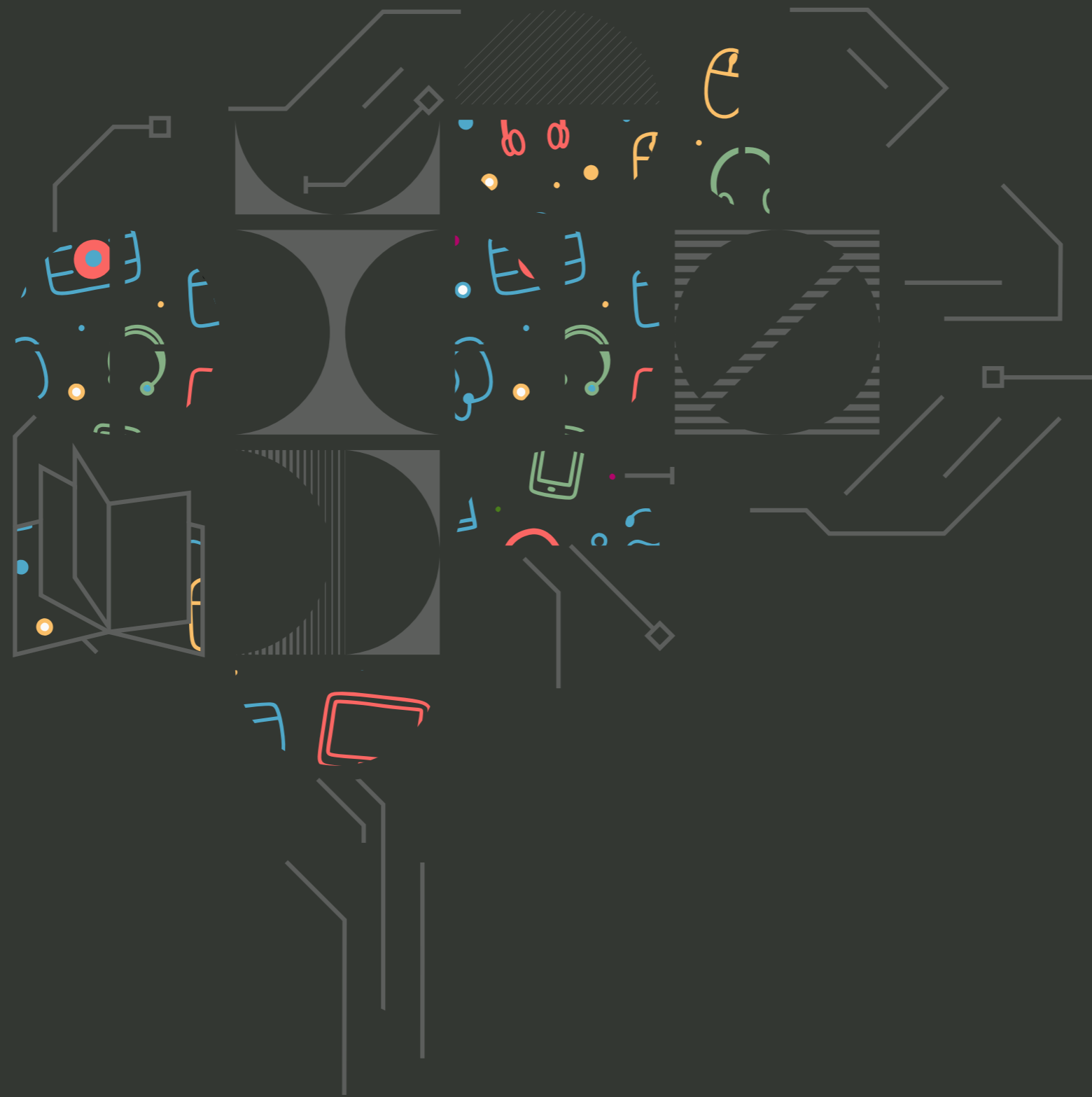
- digital literacy
- older adults
- emotional learning
- educational innovation
- digital dividey

### Literacia digital em pessoas idosas: o papel das emoções na aprendizagem tecnológica

Esta comunicação apresenta os resultados de uma investigação qualitativa, cujo principal objetivo foi analisar como as pessoas com mais de 65 anos em Portugal interagem com as tecnologias digitais, identificando obstáculos de aprendizagem e a influência da gestão emocional neste processo. A metodologia baseou-se na realização de 60 entrevistas semiestruturadas, sujeitas à análise de conteúdo (Bardin, 2016), no programa NVivo v.14, cujos dados oferecem uma visão geral das necessidades formativas deste grupo etário. Os resultados revelaram que o telemóvel é o dispositivo mais utilizado (94%), sobretudo para comunicação e lazer, através de aplicações como o WhatsApp e o Facebook. Embora 71% dos participantes reconheçam que a tecnologia melhora a sua qualidade de vida, existe um fosso educativo: a maioria não recebeu formação específica e depende de redes informais, como familiares (47%) ou amigos (16%). Em termos de inovação educativa, o resultado mais relevante é a dimensão emocional da aprendizagem. 55% dos entrevistados não reconheceram, de início, as emoções associadas ao uso de tecnologia. Contudo, emergiram barreiras como o medo (33%) e a ansiedade (27%). Além disso, 47% dos idosos admitiram a necessidade de receber uma formação não puramente técnica, mas que incluía estratégias para gerir a frustração e a ansiedade. Em conclusão, propõe-se que a educação de adultos supere a literacia instrumental. É essencial conceber programas de desenvolvimento de competências digitais para esta faixa etária, que também incorporem competências emocionais. Só através de uma abordagem educativa centrada no ser humano e com consciência emocional será possível garantir a verdadeira inclusão digital e o empoderamento das pessoas idosas.

#### Palavras-chave

- literacia digital
- pessoas idosas
- aprendizagem emocional
- inovação educativa
- fosso digital



Parallel Sessions  
Programme

Programa das  
Sessões Paralelas

**Educational Policies, Didactics,  
 and Teacher Education**  
 Políticas Educativas,  
 Didáticas e Formação

**[Aula Magna] [Aula Magna]**

**[online sessions] [sessões online]**

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Susana Amante</b>			
83	Merve ÖZTÜRER	Investigation of Pre-Service Preschool Teachers' Higher-Order Thinking Skills in Terms of Certain Variables	14:30
56	Yoshinori KINOMURA	Coaching as Environmental Design: An Ecological Perspective on Training Practice	14:40
124	Koji Takahashi	Repositioning Physical Literacy in Teacher Education: A Review of Research Trends and a Theoretical Integration	14:50
129	Natália Fraga de Oliveira	Conversation circles and teacher education: a territorially grounded methodology in communities of the Middle Rio Doce (MG)	15:00
203R	Lara Checa-Domene	DUATEC-Labs in Higher Education: a pilot study	15:10
113	Yusuke Hidaka	Reflecting on the establishment of Physical Education Department in Japanese High Schools from the 1960s to the 1970s	15:20

**[auditorium] [auditório]**

**[online sessions] [sessões online]**

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Susana Ambrósio</b>			
68	Daniela Villa-Henao	You Don't Have to Do It Alone: The Role of Peer Mentoring in Final Degree Projects in Higher Education	14:30
69	Blanca Rubio Palomino	From Data to Action: Quantitative Research for Whole-School Empowerment in Safe and Responsible Internet Use	14:40
200R	Angela Deyva Gomes da Silva	Autobiographical narratives in adult education: investigative uses and formative potential	14:50
139	Susana Ambrósio	Science Communication in European University Alliances: Convergences and Gaps of Practice under the European Education Area and European Research Area Framework	15:00
142	Susana Ambrósio	Fostering a positive Research Culture in CI&DEI: Insights from the INSIDE Project	15:10
81	Ricardo André Birrento Aguiar	Who Designs the Learning Environment? Evaluating Cognitive Load and Subjective Experience in Youth Basketball	15:20

25<sup>th</sup> June  
 25 de junho

[Professor Fernando Sebastião Multipurpose Building]

[Edifício Multiusos Professor Fernando Sebastião]

[room 3] [sala 3]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Ana Paula Cardoso</b>			
36	Ana Paula Cardoso	Contact with Art in the 2nd Cycle of Elementary Education: Importance and Potential within the Context of Visual Education	14:30
37	Ana Paula Cardoso	Teachers' Perception of Their Practices for the Inclusion of Children with Specific Health Needs	14:40
41	Clarisse Nunes	Construction of teaching professionalism in Initial Training: Evidence from Supervised Professional Practice Reports	14:50
46	Kentaro TAI	Repositioning Consent in Mandatory Physical Education: From Participation to "Competition Intensity"	15:00
50	Leandro Silva de Paula	Environmental Education and Teaching about Mining in Ipatinga, Minas Gerais, Brazil: Contributions from the Rio Doce School Program	15:10
206R	Daniela Bobocea	Developing Leadership Competences for High-Performance Management Education: Contemporary Perspectives and Practices	15:20

[room 4] [sala 4]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Sandrina Milhano</b>			
97	Natalina Cristóvão	Local management of the Music Education curriculum – From policies to practices in the Autonomous Region of Madeira	14:30
98	Jorge Luiz dos Santos	Rio Doce School Program (PEBRID) in Ipatinga-MG: Reparation Diagnosis and Confronting Pedagogical Silence Post-Fundão Disaster	14:40
100	Aline Andrade Baia Câmara	Beyond Pedagogical Silence: PEBRID's Trajectory and perspectives on pedagogical practice in the Rio Doce Basin	14:50
121	Tiago Tempera	Pedagogical Innovation in IPL: Insights from a Podcast-Based Study	15:00
42	Sandrina Milhano	Arts-Based Pedagogical Innovation in Teacher Education: Insights from the Maio Criativo Project	15:10
132	Artur Marques	Exploratory study of how two learning models influence shooting skill acquisition in young football players	15:20

[room M1] [sala M1]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Ana Isabel Silva</b>			
134	Juliana Rodrigues Silva Santos	Beyond Pedagogical Technique: Conversation Circles as a Device for Narrative Production in Post-Disaster School Contexts	14:30
135	Dulce Melão	Educating for peace through children's literature	14:40
35 *	Gabriela Ferreira Vieira	UniPlural Project: Dueling with Prejudice in Academia	14:50
122	Catarina Monteiro	Children's Digital Stories and Collaborative Pedagogical Supervision: Contributions to Teacher Professional Development in Primary Education	15:00
52	Carina Ferreira	Teacher Identity Construction in Pre-Service Teachers: Between Portuguese Language Didactics and the Observation of Teaching Practices	15:10
87	Beatriz Lourosa	Research practices in early years education for environmental literacy on edible plants: an experience in a kindergarden in Guarda	15:20

\* communication in the thematic area of Education, Citizenship and Inclusion | comunicação da área temática Educação, Cidadania e Inclusão

Health Education  
and Quality of Life  
Educação para a Saúde  
e Qualidade de Vida

[Professor Fernando Sebastião Multipurpose Building]

[Edifício Multiusos Professor Fernando Sebastião]

[room 1] [sala 1]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERATORS   MODERADORES: José Sargento &amp; Paulo Eira</b>			
86	Artur Marques	Sex differences in the physical fitness zones of higher education students: an analysis based on the FITescola test battery	14:30
40	Américo Madeira	Hipnose como Estratégia Psicoeducativa de Autorregulação	14:40
49	Sofia Oliveira	Physical exercise in old age: Perceptions about its practice in gyms and fitness centers	14:50
60	David Almeida	E-sports, Physical Activity and Leisure: Challenges and Benefits of a Growing Modality	15:00
72	Patrícia Monteiro	Substance and non-substance-related addictive behaviors among Portuguese children and adolescents: self-perceptions and those of guardians	15:10
90	Paula Cristina Pais Martinho	Barriers to the Promotion of Adapted Sport: A Study with Coaches from the Viseu Region	14:30
102	Carlos Vasconcelos	Waist-hip ratio in Portuguese adults newly enrolled in a health club	14:40
103	Carlos Vasconcelos	Differences in premenstrual symptom categories according to physical activity levels in Portuguese female university students: an exploratory study	14:50
104	Carlos Vasconcelos	Impact of Sedentary Behavior on Different Domains of Premenstrual Symptoms in Portuguese Female University Students: an exploratory study	15:00

Education, Citizenship,  
 and Inclusion  
 Educação,  
 Cidadania e Inclusão

[Aula Magna] [Aula Magna]

[online sessions] [sessões online]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Sandrina Milhano</b>			
38	Alicia Murciano Hueso	Digital literacy in older adults: the role of emotions in technological learning	09:30
58	Shuhei KITAGAWA	Considering the Potential of Inclusive Physical Education Practices Based on the Ecological Dynamics Approach	09:40
74	Alicia Murciano Hueso	Artificial Intelligence and Intergenerational Learning: A Teaching Innovation Project to Address Ageism at the University of Salamanca (Spain)	09:50
84	Joertz Floriane	Informal Dynamics in Collaborative Networks Addressing Child Poverty in Belgium	10:00
99	Francisco Janio Sampaio Bezerra	Teacher Education and Inclusion in Physical Education: Life Histories of Teachers Who Are Parents of Children with Autism	10:10
101	Rebecca Ruhama Gomes Barbosa	Themes and trends in the scientific production on brazilian women's football: a scoping review	10:20
71	Antonio Marcos Alves da Silva	Teachers' Digital Competences and Barriers to its use in a Public School in Alagoas, Brazil	10:30
78	Sandrina Milhano	Inclusive Education and Artificial Intelligence: Perceptions and Training in Socio-educational Contexts	10:40

[Professor Fernando Sebastião Multipurpose Building]

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[room 1] [sala 1]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Clarisse Nunes</b>			
31	Luís Filipe Torres Moreira	Contribution of STS-Based Didactic Resources to Scientific Literacy, Critical Thinking, and Cooperation in Basic Education	09:30
34	Cristina Simões	Inclusion with Quality: The Impact of the Personal Outcomes Scale - Children and Adolescents	09:40
48	Clarisse Nunes	Multi-Sensory Storytelling as an Inclusive Pedagogical Strategy for Students with Profound Intellectual and Multiple Disabilities	09:50
59	Maria Cristina Santos Moreira	Linguistic Inclusion as a Pathway to Social Integration: A Participatory Action Intervention with Migrants at Porta Solidária (Porto, Portugal)	10:00
61	Lilian Saldanha	Perceptions of spirituality and its influence on sports performance: an exploratory approach.	10:10
62	Marília Castro	Readings in urbanity: street art and social dynamics (re)interpreted - the artistic and cultural sensibilities of social education students	10:20
66	Natália Gomes	The Role of International Projects in Higher Education: Motivations, Strategic Value, and Impact	10:30
125	Sandra Ferreira	Learning Beyond Walls: Reframing Early Childhood Education through Urban Space	10:40

26<sup>th</sup> June  
 26 de junho

[room 2] [sala 2]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Cristiana Madureira</b>			
75	Sandrina Gil	Pedagogical supervision in inclusive education: contributions to the development of collaborative practices among teachers	09:30
76	Cristiana Madureira	Student Perspectives on Inclusion and Interculturality in Higher Education: Impacts of Universal Design for Learning	09:40
77	Cristiana Madureira	Hypercultural Education Spaces: Foundations for the Construction of Inclusive Citizenship	09:50
89	Sicleidi Valente	Innovation and Community Problem-Based Learning: A Case Study in a Rio de Janeiro Favela	10:00
92	Dulce Lima	The Use of Technology and Screen Exposure in Young People's Digital Well-Being: A Comparative Analysis of Pupils' and Parents' Perceptions	10:10
96	Heloan Batista	Ludic-Pedagogical Material in Environmental Education: Raising Awareness of the Role of Bees in Ecosystems in Primary Education	10:20
57	Gabriel Felipe Martins Rocha	Decolonial Climate Education: Plural knowledges and justice in the anthropocene crisis	10:30

[room 3] [sala 3]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Elsa Morgado</b>			
114	Maria Figueiredo	Nature and Robots in Initial Early Childhood Teacher Education: Meaningful Practices of Educational Robotics and Environmental Education	09:30
144	Maria Figueiredo	Play and Creativity in Early Childhood Education: Tools and Ideas on the Evaluation of Conditions for Development	09:40
204R	Geert Thyssen	Strengthening communities through inclusive early years centered intergenerational leveraging of water-related intangible cultural heritage	09:50
54	Soraia Aparecida Siqueira Gama	The Presence of Pedagogical Silence as a Teaching Practice: the Case of Padre José Epifânio Gonçalves State School in Barra Longa, Minas Gerais, Brazil	10:00
85	Vinicius von Doellinger	Vocational training for refugees in latin america: conflicts between the dreamed and the lived	10:10
145	Marco Braga	The 'social spillover' through school projects - Innovation for quality of life in rural environments	10:20
133	Cristina Barroso Cruz	Between Access and Participation: Media Representations of Artistic and Cultural Mediation in Portugal	10:30
138	Cristina Barroso Cruz	Artistic and Cultural Mediation in Schools: Contributions to the Analysis of the National Arts Plan	10:40

[room 4] [sala 4]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Tadeu Celestino</b>			
65 *	Ana Gama	Supervision in Dialogue: Perspectives of Practising Teachers and Institutional Supervisors	09:30
70 **	Rosa Branca Tracana	Community engagement and intercultural dialogue: the link between the Science Fair (Escola-Campo) and the Feira das Marias (Quilombo Candéal II)	09:40
79 *	Maria Teresa Brito Chedas de Sampaio	Integrated Narrative Vocabulary Instruction (INVI) for Expressive and Coherent Writing in Elementary Portuguese L1 Education	09:50
118 *	Lúcia Grave Magueta	Peer Instruction in the context of an Art Education project	10:00
136 *	Ana Rita Brito Chedas de Sampaio	Exploring with Digital Tools: Building Mathematical Concepts in Elementary School	10:10
112	Susana Ambrósio	"Science and scientists through the eyes of children" - a project with 4th grade of primary education	10:20
73	Rosina Fernandes	Poverty in Portugal: A Decade and a Half of Evolution	10:30
141	Carla Lourenço	Perceived Motor Competence and School Readiness: Conceptual Pathways for the Early Identification of Developmental Coordination Difficulties	10:40

\* communication in the thematic area of Educational Policies, Didactics, and Teacher Education | comunicação da área temática Políticas Educativas, Didáticas e Formação

\*\* communication in the thematic area of Health Education and Quality of Life | comunicação da área temática Educação para a Saúde e Qualidade de Vida

ICT and Multimedia  
in Education  
TIC e Multimédia  
na Educação

[auditorium] [auditório]

ID	PRESENTER   APRESENTADOR	COMUNICATION   COMUNICAÇÃO	
<b>MODERADOR   MODERADOR: Salomé Morais</b>			
137	Maria Cristina Aguiar	BodyBeat: rhythmic body creation using multimedia	09:30
80	Elena Gala Sánchez	Enhancing chemistry laboratory readiness: Interactive pathways for meaningful student learning	09:40
94	Cecília Guerra	Interactive Multimedia Tools for Citizen Science Communication: Developments of Digital Resources in the URBAn WAt3r Project	09:50
95	Cecília Guerra	WebVR for Science Communication: A Framework-Based Approach for Citizen Science in the Agueira Reservoir for the 2Qua project	10:00
108	Paula Fonseca	Developing Early Research and Academic Communication Skills through International Collaboration	10:10
109	Paula Fonseca	When Students Know What They Want but AI Doesn't Get It: Bridging Intention and Language in AI-Mediated Learning	10:20
127	Carlos Brigas	Artificial Intelligence in Elementary Education: Tools, Pedagogical Potential, and Challenges	10:30
205R	Daniela Bobocea	ICT and Multimedia in Education – Theories, Models and Applications in the Romanian Educational System	10:40
106	Maria João Silva	Building an inclusive AI literacy in higher education ecosystems	10:50



# RIE 26

Research & Innovation  
in Education Congress:  
Emerging Challenges



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