

The background of the top half of the page is a photograph of a modern, curved building with a glass facade, illuminated from within, set against a twilight sky. The building's architecture is futuristic and organic in shape.

CONFERENCE PROGRAM & ABSTRACTS

EARLI SIG 15 CONFERENCE 2024

**Special Educational Needs - Neurodiversity in
Education: Research and Practice**

September 2nd - 4th, 2024 | Valencia, Spain

Program and book of short abstracts of the EARLI SIG15 Conference 2024
Held in Valencia, 2-4 September 2024.

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EARLI SIG 15 CONFERENCE 2024

Special Educational Needs

Neurodiversity in Education: Research and Practice

We are grateful to the associations and institutions that offer their sponsorship and support to the 2024 SIG15 Conference in Valencia:

- Conselleria d'Educació, Universitats i Ocupació.
- SEPEX: Sociedad Española de Psicología Experimental [Spanish Society of Experimental Psychology]
- UVdiscapacidad: Inclusion office of the University of Valencia.
- Universidad de Valencia - Facultad de Psicología y Logopedia [University of Valencia - Psychology and Speech Therapy Faculty]



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Interdisciplinària de Lectura

EARLI SIG 15 CONFERENCE 2024

Special Educational Needs

Neurodiversity in Education: Research and Practice

Welcome to the EARLI SIG15 Conference 2024 on "Neurodiversity in Education: Research and Practice," held in the beautiful city of Valencia. We are excited to present a diverse program that delves into the many aspects of neurodiversity and its impact on education. This year's theme highlights the importance of recognizing and supporting neurodiverse learners to create inclusive educational environments.

Our schedule includes keynote speeches, panel discussions, demo and poster sessions, offering practical strategies and insights from researchers around the world. In addition, in this edition we have pre-conference workshops, especially aimed at junior researchers, jointly organised by the local committees of the EARLI SIG2 and SIG15 conferences and the ERI Lectura team (Universitat de València). We expect this conference to generate new insights and foster collaborations in the field of research on special educational needs.

Valencia, known for its rich history, stunning architecture, and vibrant culture, provides the perfect backdrop for our discussions and networking. We hope you take some time to enjoy the city's famous paella, stroll through the picturesque streets of the historic center, and visit the impressive City of Arts and Sciences. Thank you for joining us, and we wish you a pleasant and productive experience.



Conference chair
Associate Professor
Dpt. of Developmental and Educational Psychology
ERI-Lectura
University of Valencia



Conference chair
Postdoctoral Researcher*
ERI-Lectura
University of Valencia

*Margarita Salas' grant recipient MS21-063 from the Ministry of Universities of the Spanish Government

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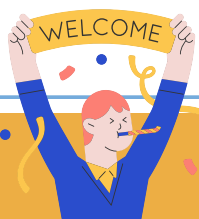
Diego Uchenna

Marta Veres

Ella Katerina Dougall

Monday, September 2nd

13.00
-
14.00



Conference registration



(Room: Hall)

14.00
-
14.30

OPENING CEREMONY

(Room: Salón de actos)

14.30
-
15.30

(Room: Salón de actos)

Key-note: Barbara Arfé

Computational thinking and coding as tools of the mind

15.30
-
15.45

SHORT COFFEE BREAK



(Room: Hall)

PARALLEL SESSION

A. Executive functions at school: the role of dyadic and classroom-level teacher-student interactions - Symposium (Room: Salón de actos)

Discussant: Pirjo Aunio - Chair: Dieter Baeyens

Exploring Teacher-Student Relations and Working Memory in Primary School Children

Presenting author: Mariette Huizinga

The role of teacher interaction strategies to improve working memory in children: A microtrial study

Presenting author: Dieter Baeyens

Neurodiversity in Associations Between Teacher-Child Relationship and Executive Function

Presenting author: Dieuwert ten Braak

The role of daily teacher-child relationships in self-regulation and executive function development

Presenting author: Friederike Blume

15.45

-

17.15

B. Enhancing Support and Decision-Making in Special Education Settings (110)

- Paper session (Room: Aula 6 ; Chair: Eva Rosa)

The Impact of an Integrated Care Arrangement in Special Schools: A Cost and Benefit Analysis

Presenting author: Brittney Root

Placement Trajectories of Students With Intellectual Disabilities: Gender and Migration Background

Presenting author: Romana Snozzi

Teachers' ability to conduct data-based decision-making using visual analysis

Presenting author: Henrik Husberg

Cognitive accessibility in intellectual disability with high support needs

Presenting author: Miriam Rivero-Contreras

Improving the Accuracy of Visual Inspections in Educational Interventions

Presenting author: Theresa M. Steiner & Jannis Bosch

Monday, September 2nd

PARALLEL SESSION

C. Inclusive Education Perspectives: Perceptions, Self-Efficacy, and Social Dynamics (100)

- Paper session (Room: Aula 9 ; Chair: Carmen Berenguer)

15.45

-
17.15

The role of social anxiety for the relationship between teacher feedback and social acceptance
Presenting author: Philipp Nicolay

Pre-service Early Childhood Education and Care (ECEC) professionals' perception of inclusion
Presenting author: Simone Schaub

Teachers' self-efficacy and attitudes toward inclusive education associated with teacher factors
Presenting author: Gunita Mudhar

Sources of pre-service teachers' self-efficacy beliefs concerning inclusive teaching
Presenting author: Gamze Görel

Differences Perceived Inclusion: Considering Various Perspectives and Special Educational Needs
Presenting author: Ramona Eberli

17.15

-
17.45

COFFEE BREAK (Room: Hall)

POSTER AND DEMO SESSION I

Poster presentation (Room: Hall)

17.45

-
18.45

1. *'What we were told is that he was an ideal autistic child': When inclusion excludes*
Presenting author: Camila Martinez

2. *Promoting Self-Determination - Enabling Neurodivergent Higher Education Students to Thrive?*
Presenting author: Hanna Liisa Hakala

3. *Does empathy moderate the relationship between teacher feedback and social acceptance?*
Presenting author: Markus Spilles

4. *Support program for students with autism in higher education: a single case study*
Presenting author: Nathalie Quartenoud

5. *A Study Protocol for a School-based Intervention to Improve Working Memory via Teacher Strategies*
Presenting author: Sophie Pollé

6. ~~*Autistic women - Unique lives on the spectrum (cancelled)*~~

7. *Is there a dissociation between word reading and/or spelling deficits? A cross-linguistic study*
Presenting author: Bjarte Furnes

8. *Predictive validity of Learning potential assessment in the efficacy of a literacy intervention*
Presenting author: Francisca Serrano Chica



Monday, September 2nd

POSTER AND DEMO SESSION I

Poster Presentation (Room: Hall)

9. *Exploring the Role of Social Capital in School Participation of Disabled Children in China*
Presenting author: Xinqian (Nancy) Jiang
10. *Retaining or blurring special education from behavioral support in inclusive schools?*
Presenting author: Jacquelin Kluge
11. *ThinkMath Early Numeracy Assessment in Measuring South African School Beginners*
Presenting author: Kathleen Fonseca
12. *Peer Popularity Among Students with Intellectual Disabilities Attending Special Needs Schools*
Presenting author: Noemi Schoop-Kasteler
13. *Adolescents school well-being with or without learning disabilities: a study on gender differences.*
Presenting author: Martina Lattanzi
14. *Autistic and not lonely: a reconceptualization of loneliness from autistic perspectives*
Presenting author: Luciana White
15. *Parental Involvement in Music Training for Autistic Children with Intellectual Disabilities*
Presenting author: Yen Na Yum
16. *Self-Compassion Might Mediate the Association Between Autistic Traits and Life Satisfaction*
Presenting author: Mo Chen
53. *Promotion of social and emotional development in inclusive biology education*
Presenting author: Daniela Nussbaumer (rescheduled, previously in Wednesday's session)

Research Blitz with Poster (Room: Sala de Cristal ; Chair: Christian Brandmo)

17. *The consideration of adaptive behavior in the assessment for special educational needs in Germany*
Presenting author: Melina Agha
18. *Reading comprehension in students with ASD: the "seductive details effect" in inference making*
Presenting author: Laura Herrero-Roig
19. *Implementation of a model for the advancement of literacy in children with special educational needs*
Presenting author: Sara Zadunaisky Ehrlich
20. *Finnish School-Wide Behavioral Policies and Practices for Grades 1-6*
Presenting author: Angel Park (Re-scheduled as video presentation)
21. *Cross-comparison and discriminative power of motor and visuospatial skills in DCD and DVSD*
Presenting author: Camilla Orefice
22. *Comparative Analysis of Special Educational School systems (CASES)*
Presenting author: Erica Ranzato, Nadina Gómez-Merino

Demo Presentation (Room: Sala de Cristal; Chair: Christian Brandmo)

- D1. *Yellow Red: A digital tool to assess the executive functions of deaf and blind children playfully*
Presenting author: Victoria Espinoza

17.45
-
18.45

18.45
-
20.00

Welcome Cocktail

(Room: Hall)



You can grab your
early morning
coffee in the Hall



Tuesday, September 3rd

POSTER AND DEMO SESSION II

Poster Presentation (Room: Hall)

23. *Effects of an intervention on students' attitudes towards peers with special educational needs*
Presenting author: Marwin Felix Loeper

24. *Decision-making processes regarding reasonable accommodations: A qualitative vignette study*
Presenting author: Laura Fluyt

25. *Exploring the Consequences of Family-Implemented Supports for Disabled Children in Special Schools*
Presenting author: Xinqian (Nancy) Jiang

26. *Exploring reading comprehension in Deaf Spanish Students: Insights for Intervention approaches*
Presenting author: Laura Hernandez Sobrino

27. *Teachers' Experiences in Educating Children with SEN and Providing Reasonable Accommodations*
Presenting author: Laura Fluyt

28. *Building Content Validity for a Life Skills Assessment for Students with SENs: A E-Delphi Study*
Presenting author: Mo Chen

29. *EF development in pre-schoolers with early term births from families with psychosocial stress*
Presenting author: Minna Törmänen

30. *An eye-tracking study on pre-service teachers' professional vision in class*
Presenting author: Gamze Görel

31. *Understanding teachers' perspectives on students with epilepsy: Attitudes in inclusive education*
Presenting author: Pawel R. Kulawiak

32. *Assessing English Proficiency in Children With Dyslexia*
Presenting author: Diana Carrascal

33. *School achievement of 3rd graders from stressed families: Effects of an Early Childhood Intervention*
Presenting author: Isabelle Kalkusch

34. *The home numeracy and literacy environment of autistic preschoolers and their neurotypical peers*
Presenting author: Sarah Urban

35. *Family's support in learning: English as a foreign Language in Children with Dyslexia*
Presenting author: Marta Álvarez Cañizo

36. *Effectively Teaching Students with SEN: a Template Analysis and Comparison between Teachers*
Presenting author: Jolien Delafontaine

Research Blitz with Poster (Room: Sala de Cristal ; Chair: Dieter Baeyens)

37. *Institutional factors affecting the school-to-work transition of young people with disabilities*
Presenting author: Claire Edwards

38. *Dynamic Testing and Educational Plans: Diagnostic Insights for Addressing Arithmetic Difficulties*
Presenting author: Ante Pavic

8.45
-
9.30



Tuesday, September 3rd

POSTER AND DEMO SESSION II

Research Blitz with Poster (Room: Sala de Cristal ; Chair: Dieter Baeyens)

39. *Educational Equity in Literacy: an Integrated Educational Program on Students with and without SEN*
Presenting author: Giulia Toti & Ilaria Stragapede

40. *Within pauses: Five children with Low Handwriting Transcription Scores*
Presenting author: Irune Ibarra

41. *Improving Math Attitudes in School-age students: A comprehensive Meta-analysis and Systematic Review*
Presenting author: Alice Masi

Demo Presentation (Room: Sala de Cristal ; Chair: Dieter Baeyens)

D2. *A demo of Atenxia App: IA as educational technology for improving ADHD and dyslexia*
Presenting author: Francisca Serrano Chica

8.45
-
9.30

PARALLEL SESSION

A. Misconceptions about Neurodevelopmental Disorders - Symposium

Discussant: Jo Van Herwegen - Chair: Anna-Sophia Dersch (Room: Salón de actos)

Misconceptions about Neurodevelopmental Disorders by Italian teachers: a Mixed-methods Analysis.
Presenting author: Chiara Pecini

Development, Evaluation and Application of the Misconceptions about Autism Questionnaire (MAQ)
Presenting author: Anna-Sophia Dersch

From the scientific article to the YouTube video: Debunking myths on special educational needs.
Presenting author: Nadina Gómez-Merino

9.30
-
10.30

B. Language and Executive functions in students with neurodivergence (106)

- Paper session (Room: Aula 6 ; Chair: Mario Figueroa)

Neurodivergent profiles of executive functions
Presenting author: Ricardo Rosas Diaz

App-based learning in phonological awareness and reading comprehension: benefits for lower achievers
Presenting author: Verena Hofmann

Are deaf students flexible in response to task objectives and text structure?
Presenting author: Isabel R. Rodríguez-Ortiz

Oral language intervention can improve children's language and expressive writing skills
Presenting author: Rosanne Esposito

Exploring current speech-to-text software for children with reading and writing difficulties
Presenting author: Åsa Wengelin



Tuesday, September 3rd

PARALLEL SESSION

C. Navigating Educational Challenges for Inclusion (102) - Paper session

(Room: Aula 9 ; Chair: Evdokia Pittas)

A systematic review of the effects of COVID-19 on the educational performance of children with SEND
Presenting author: Evdokia Pittas

9.30
-
10.30

Ethnic disproportionality in the identification of ASD: A national longitudinal study age 5-11
Presenting author: Steve Strand

Impact of high selective and low selective schools on student's academic self-concept
Presenting author: Reto Luder

The Intersection of Multiple Disability Perspectives with Postsecondary Access in Canada
Presenting author: Robert Brown

10.30
-
11.00

COFFEE BREAK  (Room: Hall)

11.00
-
12.00

(Room: Salón de actos)

Key-note: Eva Gutiérrez-Sigut

Speech-Sign Bilingualism: A Window into Neurodiversity

PARALLEL SESSION

A. Validity and Reliability of Measurement Tools used to Identify Mathematical Learning Difficulties - Symposium (Room: Salón de actos)

Discussant: Pirjo Aunio - Chair: Laura Outhwaite

Psychometric Properties of Early Maths Assessments and Screeners: A Systematic Review
Presenting author: Laura Outhwaite

12.00
-
13.15

Reliability and validity evidence of the online FUNA-DB screener
Presenting author: Heidi Hellstrand

Measuring young children's mathematics vocabulary in majority countries
Presenting author: Hanrie Bezuidenhout

B. Experience sampling methods in special education research - Symposium

Discussant: Friederike Blume - Chair: Carmen Zurbriggen (Room: Aula 6)

Students' academic motivation in the classroom, peer-related predictors, and behavioral problems
Presenting author: Carmen Zurbriggen

Using the experience sampling method in the context of intellectual disability
Presenting author: Simone Schaub

Grade four students' mathematics anxiety during math classes
Presenting author: Moritz Herzog

Identifying individual barriers of autistic students using experience sampling
Presenting author: Theresa Serratore



Tuesday, September 3rd

PARALLEL SESSION

C. Motivational, Social and Affective Processes in SEND (107) - Paper session

(Room: Aula 9 ; Chair: Carmen Berenguer)

Social Inclusion and Resistance to Peer Influence of Individuals With Down or Williams Syndrome
Presenting author: Gina Nenniger

The Relationship Between Disruptive Behavior, Social Acceptance and Classroom Management
Presenting author: Raphael Plutz

Social cognition in incidental contexts: Insights from deafness
Presenting author: Mario Figueroa

Classroom Interaction Quality Influences Inclusion Perception: Implications for Special Education
Presenting author: Ramona Eberli

Stereotype threat reduces academic performance in special schools for general learning disability
Presenting authors: Tobias Tempel & David Scheer

12.00
-
13.15

13.15
-
14.30

LUNCH  (Room: Cafetería)

14.30
-
15.30

(Room: Salón de actos)

Key-note: Emily Jones

Understanding early autism from the perspective of neurodiversity: Insights for education

15.30
-
15.45

SHORT COFFEE BREAK  (Room: Hall)

PARALLEL SESSION

A. Enhancing Autism Support in Education (103) - Paper session

(Room: Salón de actos ; Chair: Patricia Pérez-Fuster)

Professionals' stories on supporting belonging for autistic children in ECEC
Presenting author: Aino Äikäs

Interaction with schoolmates in a comprehensive school: autistic adults' experiences
Presenting author: Eija Kärnä

Augmented reality technology games for skills improvement in autistic children
Presenting author: Patricia Pérez-Fuster

Executive functioning in preschoolers with Autism Spectrum Disorders without Intellectual Disability
Presenting author: Chiara Pecini

15.45
-
17.15



Tuesday, September 3rd

PARALLEL SESSION

B. Math Learning and SEND (I) (104) - Paper session

(Room: Aula 6 ; Chair: Javier Roca)

Reciprocal associations of fundamental and fine motor skills, executive functions and early numeracy
Presenting author: Anssi Vanhala

Math anxiety and its relations to arithmetic fluency and number processing in fourth-grade students
Presenting author: Pinja Jylänki

An Investigation and Intervention on Teachers' Knowledge About Dyscalculia
Presenting author: Lisa Bender

The Mediating Roles of Working Memory and Self-Concept in the Math Anxiety-Performance link
Presenting author: Jonatan Finell

Developmental Relations of Motivational-beliefs in Math across Educational Transition
Presenting author: Anna Widlund

Collaboration of 4-5-year-old SEN children in a hands-on problem-solving task
Presenting author: Kati Sormunen

15.45
-
17.15

C. Challenges for Enhancing Assessment and Intervention in SEN (108) - Paper session

(Room: Aula 9 ; Chair: Eva Rosa)

Raising educational outcomes for individuals with special educational needs
Presenting author: Jo Van Herwegen

A Meta-Analysis of Validity and Effectiveness of Screening Assessment Tools within Three-Tier Model
Presenting author: Serap Keles

The home environment & educational attainment in preterm children: a systematic review.
Presenting author: Jorn Othmer

Efficacy of language interventions in children with neurodevelopmental disorders: A meta-analysis
Presenting author: Enrica Donolato

Exploring the Utility of Tau-U Variations in Single Case Experimental Designs
Presenting author: Timo Lüke

17.15
-
17.45

COFFEE BREAK  (Room: Hall)

17.45
-
18.45

EARLI SIG15 Business meeting



(Room: rescheduled
Salón de Actos)

20.30

Conference dinner

(Payment required)





Wednesday, September 4th

POSTER AND DEMO SESSION III

Poster presentation (Room: Hall)

- 42. *Supporting staff in implementing new practices related to communication with people with ID*
Presenting author: Veyre Aline
- 43. *Preventing elder abuse: Development of a curriculum for older adults with intellectual disabilities*
Presenting author: Mireille Tabin
- 44. *Inattention in Sight: Fostering Learning with ADHD by Digital Media*
Presenting author: Luciana Maria Cavichioli Gomes Almeida
- 45. *Improving university teaching: service-learning for young people with disabilities.*
Presenting author: Vicenta Àvila
- 46. *EmpowerED. Empowering novice teachers in dealing with challenging behavior: interactional approach.*
Presenting authors: Claudia Lento, Kristel Stinckens
- 47. *Literacy, Reading Habits and Internet Use in Adults with Intellectual Disabilities*
Presenting author: Gabriela I. Coñoman
- 48. *Effects of Out-of-School Learning Places on the STEM Biographies of Elementary School Students*
Presenting author: Jan R. Schulze
- 49. *How students with ADHD adapt to reading task goals and text structure: An eye-tracking study*
Presenting author: Pablo Delgado
- 50. *Footprints of Writing Struggles in Primary Educations: Insights from a Pseudoword Spelling Task*
Presenting author: Mariona Pascual
- 51. *Special educators' perceptions of collaboration to support students in a Swedish municipality*
Presenting author: Charlotte Jakobsson
- 52. *Developmental relations between mathematics anxiety and arithmetic fluency*
Presenting author: Johan Korhonen
- 53. *Promotion of social and emotional development in inclusive biology education*
Presenting author: Daniela Nussbaumer (rescheduled for Monday's session)
- 54. *Relationship between students' mental health and pro-environmental behavior*
Presenting author: Moritz Herzog
- 55. *Teaching of Reading in Children with Intellectual Disabilities Using Materials Developed with 3D Printers*
Presenting author: Magdalena Fernández-Pérez

Demo Presentation (Room: Sala de Cristal; ; Chair: Evdokia Pittas)

- D3. *Pictogram Room: augmented reality technology for body knowledge, joint attention and imitation.*
Presenting authors: Lucia Vera, Daniel García Arocas

8.45
-
9.30



Wednesday, September 4th

PARALLEL SESSION

A. Dynamic Testing in Special Education: Current Developments in Research and Practice - Symposium (Room: Salón de actos)

Discussant: Marco Hessels - Chair: Moritz Börnert-Ringleb

Evaluating the usefulness of dynamic testing of arithmetic abilities for educational planning

Presenting author: Taina Marisa Gabriel & Moritz Börnert-Ringleb

Dynamic Evaluation of Reasoning: Is learning potential specific of a domain or a global phenomenon?

Presenting author: Sara Mata

Testing of Instructional Needs with a Training-only Dynamic Test

Presenting author: Jochanan Veerbeek

A dynamic screening instrument utilizing serious gaming for first year secondary school students

Presenting author: Bart Vogelaar

B. Empowering Inclusive Education: Teacher Training, Expectations, and Collaboration teacher perceptions (101) - Paper session (Room: Aula 6 ; Chair: Mario Figueroa)

Influence of labels for students with learning problems on teachers' expectations and stereotypes

Presenting author: Linda Kashikar

Effects of a Collaborative Teacher Education on Pre-Service Teachers' Inclusion-Related Self-Concept

Presenting author: Jan R. Schulze

Interprofessional Collaboration in Special Education Contexts – A Scoping Review

Presenting author: Helene Hallaråker

Teaching quality for students with SEN: different or the same as in mainstream classrooms?

Presenting author: Mireille Tabin

Raising educational outcomes for individuals with SEN: Teachers' views on evidence

Presenting author: Jo Van Herwegen

C. Math Learning and SEND (II) (105) - Paper session (Room: Aula 9 ; Chair: Carmen Berenguer)

Teaching mathematics to primary school students with Down syndrome

Presenting author: Erica Ranzato

Effects of Mathematical Word Problem-Solving Interventions: A Systematic Review and Meta-Analysis

Presenting author: Terhi Vessonen

Identification of protective factors in learning sixth-grade mathematics in children with DLD

Presenting author: Tijs Kleemans

Longitudinal relations of early numeracy, language and executive function components in preschoolers

Presenting author: Natalia Stalchenko

9.30
-
10.30

10.30
-
11.00

COFFEE BREAK



(Room: Hall)

Wednesday, September 4th

11.00
-
12.00

(Room: Salón de actos)

Key-note: David Saldaña

Autistic readers: Poor comprehension or poor comprehension of comprehension?

12.00
-
13.15

PARALLEL SESSION

A. Navigating the digital world when having SEN - Invited symposium EARLI SIG2 "Text Comprehension and Graphics" (Room: Salón de actos)

Discussant: Ladislao Salmerón - Chair: Eliane Segers

Survey of Digital Skills of Adults Across a Variety of Locations

Presenting author: John Sabatini

Struggling readers in digital reading contexts – the "knows" and "don't knows."

Presenting author: Øistein Anmarkrud

Print and digital reading habits and comprehension in children with special education needs

Presenting author: Ladislao Salmerón

Children with SEN's comprehension of multiple digital documents.

Presenting author: Eliane Segers

B. Behavioral Dynamics and Transitions in Education (109) - Paper session

(Room: Aula 9; Chair: Eva rosa)

Preschool teachers and parents of children with disabilities in transition-related parent meetings

Presenting author: Daniel Then

School-to-work-transition of low achieving students in regular and special education classes

Presenting author: Markus Neuenschwander

Development of a short version of the German Developmental Behaviour Checklist for teachers (DBC-T)

Presenting author: Friederike Hell

The effectiveness of inclusive teaching practices for students with ADHD in post-secondary education

Presenting author: Dieter Baeyens

Behavioural problems and peer experiences of students in secondary school: A latent profile analysis

Presenting author: Ariana Garrote

13.15
-
14.30

LUNCH  (Room: CAFETERIA)

Bye

14.30
-
15.15

CLOSING CEREMONY & AWARDS (Room: Salón de actos)



With the participation of Xaro Escrig, Directora General de Innovación e Inclusión educativa de la Generalitat Valenciana



KEYNOTES

Computational thinking and coding as tools of the mind

Monday, September 2nd, 14.30-15.30h - Room: Salón de actos

Barbara Arfé

Department of Developmental Psychology and Socialisation, University of Padova (Italy)

Abstract. In recent years, educational and developmental researchers have invested significant effort in developing and testing cognitive interventions aimed at stimulating the development of executive functions (EF) in children with special educational needs. However, limited attention has been given to the effectiveness of intervention programs that are naturally embedded in children's everyday school activities. In this talk, I will discuss the effectiveness of integrating new digital literacy elements, such as computational thinking and coding, into the elementary school curriculum to improve children's EFs in early elementary school. When children learn to think computationally or code in school, they not only develop digital skills but also learn to articulate and clarify their thoughts and plans, generate a clear sequence of commands (the code), and test their hypotheses—processes that can stimulate the development of EF skills. I will present the results of two cluster randomized trials (Studies 1 and 2) and a multiple-baseline single-case study (Study 3), discussing how learning coding and computational thinking could boost the development of EF skills in 5-6-year-old typically developing children (Study 1), children with low EF skills (Study 2), and children with sickle cell disease, a clinical condition characterized by frontal-lobe infarctions and significant executive dysfunctions (Study 3).



Speech-Sign Bilingualism: A Window into Neurodiversity

Tuesday, September 3rd, 11.00-12.00h - Room: Salón de actos

Eva Gutiérrez-Sigut

Department of Psychology, University of Essex, UK

Abstract. All deaf children can acquire a sign language, which uses the visual modality, to increase their access to information in modern societies. I will present a series of studies involving both adult and young deaf readers, indicating that knowledge of a sign language can improve reading abilities in two ways.

Firstly, a foundation in sign language can greatly enhance language comprehension and metalinguistic abilities. Studies show that sign languages are processed in a left-lateralized brain network remarkably similar to the language network for speech. Good comprehension of language and metaphonological abilities, even in another language, are crucial for manipulating language structures essential for reading proficiency. Secondly, deaf readers seem to rely more on the links between letter and lexical representation for accurate word recognition. Studies suggest that fingerspelling can serve as a bridge between letter representations and word recognition in the absence of a robust phonological representation.

I aim to highlight the importance of sign language acquisition for deaf people, not only as a means of communication but also as a tool for improving literacy and educational outcomes. This research has implications for educational systems, as better academic achievement might require promoting sign language learning.



KEYNOTES

Understanding early autism from the perspective of neurodiversity: Insights for education

Tuesday, September 3rd, 14.30-15.30h - Room: Salón de actos

Emily Jones

Innovation and Knowledge Exchange,
Faculty of Science/Centre for Brain & Cognitive
Development; Birkbeck, University of London (UK)

Abstract

Autism is a neurodevelopmental condition that occurs in around 2% of people, and can be associated with differences in social interaction, communication and interests. Autism is connected with genetic changes that are present from conception, but is often not identified until children are in school. Prospective longitudinal studies that follow infants from near birth to childhood can reveal the earliest developmental changes that precede the later emergence of autistic traits. Here, I describe a series of studies examining some of the earliest changes in infants with later autism and their interrelation over both short and long timescales. Within prospective studies, we see differences in sensory reactivity across touch, audition and visual domains, and changes in sleep that precede an autism diagnosis. Sensory differences are related to sleep differences, and both may relate to emerging trajectories of fearfulness and later anxiety, indicating they may be important targets for supportive interventions. Further, changes in sleep may be linked to alterations in daytime brain states that have been associated with longer-term cognitive development. Taken together, examining changes in early sensory development and sleep may provide important insights into the early development of children with neurodevelopmental conditions. I discuss how these approaches can help us think about neurodevelopment from the perspective of neurodiversity.



Autistic readers: Poor comprehension or poor comprehension of comprehension?

Wednesday, September 4th, 11.00-12.00h - Room TBA; Chair: TBA

David Saldaña

Individual Differences, Language and Cognition Lab
/Departamento de Psicología Evolutiva y de la
Educación, Universidad de Sevilla (Spain)

Abstract

Autistic readers often display a poor comprehender profile, where their text comprehension lags behind their decoding skills. According to the simple view of reading, oral language plays a pivotal role in reading comprehension, suggesting that deficiencies in this area could contribute to the observed difficulties. However, other reading models emphasize the importance of understanding the reading situation and task demands. This perspective highlights that successful reading comprehension also relies on the ability to discern and respond to specific reading contexts and tasks. In this talk, we present a series of studies that explore how autistic readers respond to the objectives of reading tasks and monitor their own performance in this context. The findings shed light on the role of self-regulatory behaviours and executive function in the reading comprehension of autistic individuals, suggesting that enhancing these skills could improve their reading outcomes.



Abstracts

Monday, September 2nd, 15.45-17.15h
PARALLEL SESSION

A. Executive functions at school: the role of dyadic and classroom-level teacher-student interactions - Symposium (Room: Salón de actos)

Discussant: Pirjo Aunio - Chair: Dieter Baeyens

Executive functions (EFs) contribute to academic achievement and socio-emotional learning, and can impact children's educational needs. Within the classroom, the role of teacher-student interactions (TSI) on EF-development has been emphasized, both at the dyadic level (i.e. teacher-child relationship, TCR) and classroom-level. Current studies on this association, relying on cross-sectional and longitudinal designs with only single measurements per period, lack depth in addressing three key aspects, to be discussed in this symposium: causality, universality and within-person variation. The first two contributions will shed light on the causal nature of the association using cross-lagged panel design and microtrials. The third contribution investigates the strength of the TCR-EF association as a function of EF-neurodivergence. The fourth contribution challenges the current static attachment-based approach to TCR, by allowing TCR to fluctuate daily in its association with EF using a motivational perspective. Combined this symposium brings new perspectives on the association between TCR/TSI and EF.

Exploring Teacher-Student Relations and Working Memory in Primary School Children

Presenting author: Mariette Huizinga; Co-authors: Simona Sankalaite, Petra Warreyn, Dieter Baeyens

This study examined the relationship between teacher-student relationships and working memory in children. We found that working memory predicts relationship quality, not vice versa. Also, we found a correlation between math skills and working memory, but no direct link between teacher-student relationships and academic results, pointing at an indirect effect of relationships on academic achievement through working memory.

The role of teacher interaction strategies to improve working memory in children: A microtrial study

Presenting author: Dieter Baeyens; Co-authors: Sophie Pollé, Simona Sankalaite, Jantine Spilt, Mariette Huizinga

Since working memory (WM) predicts academic and social outcomes, classroom-based programmes try to support teachers in creating the optimal learning conditions in which WM can thrive. However, insight in the most effective strategies and their mechanisms of change is missing. Using microtrials, we determine the causal effect of theoretically-clustered emotional, organizational and instructional support strategies on WM development.

Neurodiversity in Associations Between Teacher-Child Relationship and Executive Function

Presenting author: Dieuwert ten Braak; Co-authors: Joana Cadima, Carolina Guedes, Tiago Ferreira, Ingunn Størksen

This study examines the link between teacher-child relationships and executive function in 886 children aged 5, attending early childhood education and care. Utilizing quantile regression, the research explores differential effects based on varying executive function levels. The study also investigates variations in associations depending on additional demographic and functional risks. Detailed methodology is available in the pre-registration: https://osf.io/cgpdf/?view_only=85c075b769aa4162aa65b104fcd6609f.

The role of daily teacher-child relationships in self-regulation and executive function development

Presenting author: Friederike Blume; Co-authors: Jantine Spilt, Dieter Baeyens

Teacher-child relationships (TCRs) are crucial for children's development. However, previous research has not considered thwarted needs and fluctuations in TCRs. This study investigated the satisfaction and dissatisfaction of children's basic psychological needs over 15 days, and linked them to changes in self-regulation and executive function over five months. Surprisingly, lower-quality TCRs, marked by needs frustration, were associated with stronger development.

Abstracts

Monday, September 2nd, 15.45-17.15h
PARALLEL SESSION**B. Enhancing Support and Decision-Making in Special Education Settings (110)**
- Paper session (Room: Aula 6; Chair: Eva Rosa)***The Impact of an Integrated Care Arrangement in Special Schools: A Cost and Benefit Analysis***

Presenting author: Brittney Root; Co-authors: Mariette Huizinga, Anika Bexkens, Martijn Meeter

Integration of care across disciplines is crucial in providing tailored education for children with special educational needs (SEN). Despite this awareness, professionals still often work independently. To reduce systematic barriers to collaboration, initiatives integrating care in education can be deployed. We performed a cost-benefit analysis of one such initiative within a special school using qualitative and financial data.

Placement Trajectories of Students With Intellectual Disabilities: Gender and Migration Background

Presenting author: Romana Snozzi; Co-authors: Christoph Müller, Carmen Zurbriggen

We explored how gender and migration background influence school placements for students with intellectual disabilities (ID). Initial findings, from Swiss administrative data, show no gender effects. Yet, students with German as their first language were more often placed in special schools in later school years. Further investigation into the intricate factors shaping ID students' placement trajectories is needed.

Teachers' ability to conduct data-based decision-making using visual analysis

Presenting author: Henrik Husberg; Co-authors: Anne Karhu, Jannis Bosch, Hannu Savolainen, Jürgen Wilbert

In this study, we investigated the accuracy of visual judgements of in-service teachers on behavioral intervention single-case graphs with and without a continuous trend effect, and change in accuracy after teachers participated in a short in-service training. Teachers were quite accurate in detecting positive effects, and the accuracy of visual analysis can be improved through a short training.

Cognitive accessibility in intellectual disability with high support needs

Presenting author: Miriam Rivero-Contreras; Co-authors: Gema Erena-Guardia, David Saldaña

This study assesses the needs of people with intellectual disability with high support needs in the field of cognitive accessibility to enhance their understanding of environments through focus groups. Thematic analysis reveals the importance of prior knowledge, training, environmental adaptation, visual aids, and clear communication. The study emphasizes the necessity for implementing and evaluating intervention measures to ensure autonomous navigation.

Improving the Accuracy of Visual Inspections in Educational Interventions

Presenting author: Theresa M. Steiner & Jannis Bosch; Co-authors: Timo Lüke, Jürgen Wilbert

Visual inspection is an often-used but error-prone strategy to analyze learning progress data. Particularly, continuous trends in the data are a problem for judgment validity. Some studies provide evidence that training interventions can increase validity. The study at hand evaluates a training program developed by the authors in an experimental pre-post design.

Abstracts

Monday, September 2nd, 15.45-17.15h
PARALLEL SESSION**C. Inclusive Education Perspectives: Perceptions, Self-Efficacy, and Social Dynamics (100) - Paper session (Room Aula 9; Chair: Carmen Berenguer)*****The role of social anxiety for the relationship between teacher feedback and social acceptance***

Presenting author: Philipp Nicolay; Co-authors: Markus Spilles, Johanna Krull, Corinna Hank, Christian Huber

Previous studies show that teacher feedback can influence how well students are socially accepted by their classmates. However, it's unclear whether students differ in their susceptibility to influence by teacher feedback. Relying on results from studies on conformity and information processing, the present study investigates if social anxiety moderates the relationship between teacher feedback and social acceptance.

Pre-service Early Childhood Education and Care (ECEC) professionals' perception of inclusion

Presenting author: Simone Schaub; Co-authors: Matthias Lütolf

A sample of 595 pre-service Early Childhood Education and Care (ECEC) professionals reported positive attitudes towards inclusive education. Positive attitudes and prior experience with persons with disability informed training needs and motivation for further training. The implications of these findings for enhancing professionalization of ECSE professionals within an extended network of special education are discussed.

Teachers' self-efficacy and attitudes toward inclusive education associated with teacher factors

Presenting author: Gunita Mudhar; Co-authors: Sigrun K. Ertesvag, Eija Pakarinen

Teacher self-reports were analysed in a study involving 100 Norwegian upper secondary school teachers to explore their self-efficacy and attitudes toward inclusive education in association with emotional support, collective efficacy, and collegial collaboration. Latent profile analyses identified four subgroups, indicating varying levels of self-efficacy and attitudes. The current study offers valuable insights in terms of the diversity of teacher self-efficacy and attitudes, informing professional development initiatives and policy enhancements geared towards targeting teachers' inclusive practices.

Sources of pre-service teachers' self-efficacy beliefs concerning inclusive teaching

Presenting author: Gamze Görel; Co-authors: Katja Franzen, Frank Hellmich

Bandura (1997) points out four sources for the development of self-efficacy beliefs: Mastery and vicarious experiences, verbal persuasion and affective states. In our study, we examined the extent to which these sources predict pre-service teachers' self-efficacy beliefs regarding inclusive teaching. The findings indicate the significance of the four factors, but also show some differences to Bandura's assumptions.

Differences Perceived Inclusion: Considering Various Perspectives and Special Educational Needs

Presenting author: Ramona Eberli

This study examines differences in perceived Emotional Inclusion, Social Inclusion, and Academic Self-concept of students with varying levels of Special Education Needs (SEN) from student and teacher perspectives. Analysing data from 74 inclusive classes, results show significant differences between the two perspectives in all aspects of inclusion comparing students with low and high SEN in contrast to students without SEN.

Poster presentation (Room: Hall)**1. 'What we were told is that he was an ideal autistic child': When inclusion excludes**

Presenting author: Camila Martínez; Co-authors: Rocío Briceño, Alexandra Davidoff

Inclusive education has been the preferred educational system for students with special educational needs and disabilities, for a long time. However, implementing such a system is not always a clear path, and may negatively impact the students' educational trajectories. Here we show the experiences of students with autism and their parents when facing the moment to enter school in Chile.

2. Promoting Self-Determination - Enabling Neurodivergent Higher Education Students to Thrive?

Presenting author: Hanna Liisa Hakala; Co-authors: Viivi Virtanen, Auli Toom, Kirsi Pyhälä

With Higher Education Institutes needing to urgently develop inclusive instructional practices to provide equitable learning opportunities for their neurodivergent students, this paper presents the research conducted on the Self-Determination Theory (Ryan & Deci, 2020) in an English course at a university in southern Finland to provide such opportunities. The teacher-student-student interactions prove pivotal for enhancing neurodivergent students' study engagement.

3. Does empathy moderate the relationship between teacher feedback and social acceptance?

Presenting author: Markus Spilles; Co-authors: Philipp Nicolay, Corinna Hank, Raphael Plutz, Christian Huber

Our study investigates whether empathy moderates the relationship between teacher feedback and social acceptance. 826 primary school students took part in a cross-sectional study. Multilevel models reveal that empathy moderates the correlation between negative teacher feedback and social acceptance. Thus, the present study partially confirms the validity of social referencing in the context of teacher feedback and social acceptance.

4. Support program for students with autism in higher education: a single case study

Presenting author: Nathalie Quartenoud; Co-authors: Nicolas Ruffieux, Carmen Zurbriggen

Despite their generally good academic skills, students with autism in higher education are at greater risk of dropping out than their neurotypical peers. A pilot support program will be presented, aimed to promote the students' self-determination to enhance equity in higher education. The poster presentation will focus on the research design: single case studies combined with the experience sampling method.

5. A Study Protocol for a School-based Intervention to Improve Working Memory via Teacher Strategies

Presenting author: Sophie Pollé; Co-authors: Mariette Huizinga, Simona Sankalaite, Polina Kartashova, Megan McClelland, Jantine Spilt, Dieter Baeyens

Working memory (WM), the ability to temporarily store and manipulate information, is crucial for children's academic achievement. Despite promising interventions to mitigate potential deficits, their efficacy within classroom contexts is uncertain. This study protocol aims to clarify the theoretical foundations behind the SWITCH-intervention, an intervention to strengthen children's WM through teacher-student interactions, in order to refine/optimize interventions for effective implementation.

Abstracts

Monday, September 2nd, 17.45-18.45h
POSTER AND DEMO SESSION I**Poster presentation (Room Hall)****6. Autistic women- Unique lives on the spectrum**

Presenting author: Saara Perälä

Autistic women- Unique lives on the spectrum This qualitative PhD research focuses on the lives of women with autism. Complex diagnostics make women vulnerable to mental health challenges and marginalisation. The research examines characteristics of autism, with the concepts of masking and 'double empathy problem'. Increasing understanding of the autism spectrum disorder (ASD) is needed to develop support in society.

7. Is there a dissociation between word reading and/or spelling deficits? A cross-linguistic study

Presenting author: Bjarte Furnes; Co-authors: Åsa Elwé

We investigated the stability of deficit subtypes of word reading and/or spelling in samples of Swedish and U.S. children followed from grades 1 to 4. Children were categorized into subtypes with word reading, spelling, or combined reading and spelling deficits. Results showed that the combined group exhibit relatively stable reading and spelling deficits. However, neither isolated reading deficits nor isolated spelling deficits demonstrated stability over time. These patterns of findings were very similar across the two orthographies. The theoretical and practical implications of these findings are discussed.

8. Predictive validity of Learning potential assessment in the efficacy of a literacy intervention

Presenting author: Francisca Serrano Chica; Co-authors: Macarena de los Santos-Roig, Maria Carmona, Antonio Rodríguez-Fuentes, Isabel Monte Tablada, Sara Mata

The evaluation of learning potential in specific domains, such as skills related to reading and writing, may generate indicators of predictive validity on the success of intervention programs in children at risk of social exclusion and in children with learning difficulties. This work reveals data related to the impact of these measures on a literacy intervention.

9. Exploring the Role of Social Capital in School Participation of Disabled Children in China

Presenting author: Xinqian (Nancy) Jiang

This study delves into the intricate dynamics of family's social capital influencing the school participation of children with Developmental Disabilities (DDs) in China. Findings gained from in-depth interviews with 20 Chinese caregivers highlight the multifaceted role of social capital in shaping educational inclusion and equity with three themes: Network Enhances School Accessibility, Exchanged Support Promotes Involvement, and Norms Impact Schooling Decisions.

10. Retaining or blurring special education from behavioral support in inclusive schools?

Presenting author: Jacquelin Kluge; Co-authors: Gino Casale, Michael Grosche

We examine the role of special education teachers (SETs) working collaboratively with general education teachers to provide behavioral support in inclusive schools. The results indicate different roles of SETs, ranging from being non-existent to a blurring into general education to a persistence of specialized role. In contrast, teachers want special education to be blurred into general education.

Abstracts

Monday, September 2nd, 17.45-18.45h
POSTER AND DEMO SESSION I**Poster presentation (Room: Hall)****11. ThinkMath Early Numeracy Assessment in Measuring South African School Beginners**

Presenting author: Kathleen Fonseca; Co-authors: Pirjo Aunio, Elizabeth Henning, Johan Korhonen

The aim of this study was to investigate early numeracy skills in South African 6-7-year-old children, their interrelatedness, and individual differences. Longitudinal data set with two measurement points was collected with 435 children (229 girls, 206 boys) in 2022. Results show that ThinkMath had a good internal consistency and had good longitudinal invariance. ThinkMath scores associated with listening comprehension and kindergarten attendance.

12. Peer Popularity Among Students with Intellectual Disabilities Attending Special Needs Schools

Presenting author: Noemi Schoop-Kasteler; Co-authors: Christoph Müller, Verena Hofmann

While the relationship between popularity and social behavior has been explored in typically developing populations, no attention has yet been given to students with intellectual disabilities (ID) attending special needs schools. In light of the risks associated with popularity, we examined both antisocial and prosocial behaviors as potential factors predicting popularity among students with ID.

13. Adolescents school well-being with or without learning disabilities: a study on gender differences.

Presenting author: Martina Lattanzi; Co-authors: Gian Marco Marzocchi, Anna Lucia Ogliari, Valentina Antonia Tobia

The School Well-being Questionnaire (QBS) is a self-report tool that investigates different aspects of school well-being. The present study is aimed at analyzing the QBS score in a group of adolescents, investigating differences based on gender and the presence of a specific learning disorder. 1992 high school students participated. Our results demonstrate an effect of both gender and diagnosis.

14. Autistic and not lonely: a reconceptualization of loneliness from autistic perspectives

Presenting author: Luciana White; Co-authors: Stephanie Petty, Emma Tecwyn

The two studies presented here are part of a PhD project. Results of a systematic review show that loneliness has been investigated with the use of measuring tools that have not been designed for nor validated by autistic people. The preliminary results of the second study aim to offer a new conceptualization of loneliness from autistic perspectives.

15. Parental Involvement in Music Training for Autistic Children with Intellectual Disabilities

Presenting author: Yen Na Yum

This study investigated the status of music training among autistic children with intellectual disabilities in Hong Kong. Relative to age-matched controls, they received much less parental support for formal music education. Lower parent-rated social responsiveness of these children was associated with lower parental expectations and attitudes to music. Music program support significantly predicted the children's self-reported enjoyment of musical activities.

Abstracts

Monday, September 2nd, 17.45-18.45h
POSTER AND DEMO SESSION I

Poster presentation (Room Hall)

16. Self-Compassion Might Mediate the Association Between Autistic Traits and Life Satisfaction

Presenting author: Mo Chen; Co-authors: Kay Boon Soh

This study aims to investigate the relationship between self-compassion, compassion for others, life satisfaction, and autistic traits in a sample of university students in an Asian city state (i.e., Singapore). A cross-sectional survey design was utilised. One hundred and seven university students (mean age = 22, SD= 1.94) studying in Singapore completed a 45-item online questionnaire including five scales. Results showed adequate reliability and validity evidence for the scales used in this study. In addition, we found no significant correlation between self-compassion and compassion for others, a positive correlation between self-compassion and life satisfaction, and a negative correlation between self-compassion and autistic traits. Results also showed that self-compassion mediated the relationship between autistic traits and life satisfaction. Despite being correlational in nature, these findings expand the cross-cultural research evidence on self-compassion, compassion for others, psychological wellbeing, and autistic traits. Limitations and future research directions are discussed.

Research Blitz with Poster (Room: Sala de Cristal ; Chair: Christian Brandmo)

17. The consideration of adaptive behavior in the assessment for special educational needs in Germany

Presenting author: Melina Agha; Co-authors: Steffen Siegemund-Johannsen

This study aims to identify the current methods used by SEN teachers to verify AB in SEN assessments. We identify systematic and structured differences in approach that are related to state educational policy regulations, but are made by SEN teachers who execute SEN assessments.

18. Reading comprehension in students with ASD: the "seductive details effect" in inference making

Presenting author: Laura Herrero-Roig; Co-authors: Ignacio Máñez

Students with Autism Spectrum Disorder (ASD) show special needs in reading comprehension. This study explores the 'seductive details effect' – whether interesting yet irrelevant images hamper comprehension – in these students. Seven adolescents with ASD read twenty-seven texts featuring seductive, relevant or no images. Findings suggest that the type of image influenced task's processing time, holding significant implications for special educational needs.

19. Implementation of a model for the advancement of literacy in children with special educational needs

Presenting author: Sara Zadunaisky Ehrlich

Access to literacy is challenging for children with SEN. This study presents the implementation of a model based on script theory and dual landscape concepts; Ivanić's model of literacy[2][3] and autobiographical memories. Two case studies were documented with ethnographic observations and interviews. The integration of socio-emotional states is crucial for children with SEN's literacy involvement and socio-emotional development.

20. Finnish School-Wide Behavioral Policies and Practices for Grades 1-6

Presenting author: Angel Park; Co-authors: Joseph Gagnon

This session focuses on a survey study involving Finnish principals of grades 1-6. The study examined their philosophy toward implementing school wide behavioral and cognitive-behavioral interventions, teacher-student relationships, and teacher collaboration with peers and parents. In addition, principals responded to questions on school-wide data collection and behavioral monitoring. Results, as well as implications for research and practice, are discussed.

Abstracts

Monday, September 2nd, 17.45-18.45h

POSTER AND DEMO SESSION I

Research Blitz with Poster (Room: Sala de Cristal; Chair: Christian Brandmo)

21. Cross-comparison and discriminative power of motor and visuospatial skills in DCD and DVSD

Presenting author: Camilla Orefice; Co-authors: Ramona Cardillo, Irene C. Mammarella

In the present study we analyze the predictive power of motor and visuospatial abilities in distinguishing between Developmental Coordination Disorder (DCD) and Developmental Visuospatial Disorder (DVSD), also considering a group of non-diagnosed (ND) peers. Findings corroborate the existence of two separate profiles, albeit with some overlapping, and may inform research and clinical practice, as well as the educational system.

22. Comparative Analysis of Special Educational School systems (CASES)

Presenting author: Erica Ranzato, Nadina Gómez-Merino; Co-authors: Nicole Bianquin, Beatriz de Diego-Lázaro, Inmaculada Fajardo, Hanna Ginner Hau, Timo Lüke, Loredana Muscat, Chiara Pecini, Evdokia Pitta, Fotini Polychroni, Ricardo Rosas Díaz, Kati Sormunen, Mireille Tabin, Jo Van Herwegen, Petra Warrey

In Educational systems for students with special educational needs and disabilities (SEND) vary widely across different countries. Reports on these systems are often lengthy, technical and outdated. We developed the CASES template (<https://osf.io/bmk3a/>) to systematically describe SEND school systems in different countries and aid understanding among researchers, educators, and policymakers. This project aims to enhance our understanding of effective practices and policies that support students with SEND globally.

Demo Presentation (Room: Sala de Cristal)

D1. Yellow Red: A digital tool to assess the executive functions of deaf and blind children playfully

Presenting author: Victoria Espinoza; Co-authors: Camila Martinez, Ricardo Rosas Diaz

There is a need for adapted and tested tools for cognitive assessment of children with disabilities. Yellow-Red is a digital tool to assess executive functions playfully. The adaptation of this test was tested with blind and deaf children. The tool, open access for research and assessment of people with disabilities, will be downloaded and used.

Tuesday, September 3rd, 8.45-9.30h

POSTER AND DEMO SESSION II

Poster presentation (Room: Hall)

23. Effects of an intervention on students' attitudes towards peers with special educational needs

Presenting author: Marwin Felix Loeper; Co-authors: Gamze Görel, Frank Hellmich

In our study, we developed, implemented, and evaluated an intervention to promote students' social participation in the inclusive primary school classroom. The results of our study show that the social participation intervention had a significant positive effect on students' attitudes towards peers with learning difficulties and towards peers with social-emotional difficulties.

24. Decision-making processes regarding reasonable accommodations: A qualitative vignette study

Presenting author: Laura Fluyt; Co-authors: Sara Nijs

Primary school teams engaged in a vignette study where scenarios were presented concerned with reasonable accommodations (RA) for students with special educational needs (SEN). School professionals mentioned they encounter organizational challenges. Additionally, they faced greater difficulties in devising RA for students with emotional or behavioral issues. Effective communication and collaboration were identified as enhancing factors in this process.

Abstracts

Tuesday, September 3rd, 8.45-9.30h
POSTER AND DEMO SESSION II

Poster presentation (Room: Hall)

25. Exploring the Consequences of Family-Implemented Supports for Disabled Children in Special Schools

Presenting author: Xinqian (Nancy) Jiang

To comprehensively understand the experiences of disabled students having family-implemented support, this study employs a qualitative case study design consisting of interviews and observations with students, carers and teachers in one special school. This study utilises Bronfenbrenner's bioecological model (Proximal Process-Person-Context-Time) as a lens to provide a holistic understanding regarding the resulting consequences of family-implemented support.

26. Exploring reading comprehension in Deaf Spanish Students: Insights for Intervention approaches

Presenting author: Laura Hernández Sobrino; Co-authors: Virginia González Santamaría, Eva Gutiérrez-Sigut

Understanding how deaf students read allows designing socio-educational interventions where they can learn effectively as well as participate in the educational context. We assessed a wide set of skills to investigate reading comprehension in deaf Spanish students as well as hearing controls. We found slightly different weights of lexical-semantic and grammatical skills for both groups.

27. Teachers' Experiences in Educating Children with SEN and Providing Reasonable Accommodations

Presenting author: Laura Fluyt; Co-authors: Sara Nijs

Through the lens of interpretative phenomenological analysis (Smith et al., 2017), this study delved into six teachers' experiences concerning the education and the provision of reasonable accommodations for children with special educational needs. The results highlight teachers' struggles with superdiversity among students, emphasizing the importance of acquiring knowledge, skills, and cooperation with key stakeholders, while also expressing concerns about feasibility.

28. Building Content Validity for a Life Skills Assessment for Students with SENs: A E-Delphi Study

Presenting author: Mo Chen

This study aims to develop and gain international expert consensus on an ADL assessment tool for students with SENs aged 7 to 18 years old. An e-Delphi study consisting of two online survey rounds was conducted. Thirty-four experts participated in the 1st round of online survey by providing quantitative rating (on a scale 1 to 3) and qualitative feedback (if any) for each of the 230 items. Based on the input from 34 experts, 101 items that went through substantial change were sent back to the expert panels for their second round of review. Twenty-three experts participated in the second round of online survey, with all items being rated higher than 2.5 on a scale from 1 to 3, and with satisfactory qualitative feedback. The finalized instrument consists of 223 items. This study presents an expert- and evidence-informed approach for developing a contemporary assessment tool for students with SENs.

29. EF development in pre-schoolers with early term births from families with psychosocial stress

Presenting author: Minna Törmänen; Co-authors: Simone Schaub, Christina Koch, Alex Neuhauser, Patsawee Rodcharoen, Isabelle Kalkusch, Andrea Lanfranchi, Peter Klaver

A previous study showed that family's psychosocial stress had a negative effect on the child's development of EF in the first three years, while the Parents-as-Teachers intervention had a positive effect. Early-term birth (N=69) compared with on-term birth (N=163) had only a moderate association with EF. This study follows the development of these children in their transition to school.

Abstracts

Tuesday, September 3rd 8.45-9.30h
POSTER AND DEMO SESSION II**Poster presentation (Room: Hall)****30. An eye-tracking study on pre-service teachers' professional vision in class**

Presenting author: Gamze Görel; Co-authors: Pauline Finke, Frank Hellmich

Teachers' professional vision is an essential skill for effectively managing heterogeneity and thus, for being aware of students' needs and the events in the classroom. The objective of this intervention study is to promote pre-service teachers' professional vision, which is investigated with eye-tracking methodology.

31. Understanding teachers' perspectives on students with epilepsy: Attitudes in inclusive education

Presenting author: Pawel R. Kulawiak; Co-authors: Jannis Bosch, Nadine Poltz, Mona Dreesmann

Objective -This study aims to investigate teachers' attitudes toward the inclusion of students with epilepsy, focusing on the medical, instructional, and emotional needs. Methods - A vignette-based questionnaire was used to collect data from 210 teachers in Germany, regarding their perceptions of a student with epilepsy. The survey sought to gauge affective, cognitive, and behavioral attitudes. Results - There is a consistent group of teachers (5-20%) who exhibit unfavorable attitudes across various contexts. These attitudes manifest as a lack of confidence in supervising trips and physical activities, concerns over academic and social challenges, and unease with seizure management. These concerns translate into recommendations to exclude the student from specific activities. Conclusion -The results underscore a critical gap in confidence, highlighting the need for targeted interventions. Such programs should aim to enhance understanding of epilepsy, dismantle misconceptions, and equip teachers with the skills necessary to provide a supportive and inclusive learning environment for students with epilepsy.

32. Assessing English Proficiency in Children With Dyslexia

Presenting author: Diana Carrascal

The present study focuses on the necessary accommodations when assessing the English as a second language proficiency of Spanish young learners (YLS) with dyslexia. To ensure the effectiveness of these accommodations two groups of Spanish YLS will be tested (i.e. YLS with dyslexia and YLS without dyslexia) by using an adapted YLS Placement Test and non-adapted one.

33. School achievement of 3rd graders from stressed families: Effects of an Early Childhood Intervention

Presenting author: Isabelle Kalkusch; Co-authors: Alex Neuhauser, Patsawee Rodcharoen, Minna Törmänen, Andrea Lanfranchi, Peter Klaver

Early childhood experiences are significant for children's development, with family psychosocial stress posing risks to their educational trajectory due to potential lack of cognitive and emotional stimulation. Home-based early childhood interventions like "Parents As Teachers – Mit Eltern Lernen" aim to strengthen family early environments. The ZEPPELIN study investigates its impact on third-grade achievement. Preliminary findings suggest positive effects on reading and writing skills, especially in high-risk families.

34. The home numeracy and literacy environment of autistic preschoolers and their neurotypical peers

Presenting author: Sarah Urban; Co-authors: Herbert Roeyers, Charlotte Schelles, Sara Verdonck, Dorte Zels, Petra Warreyn

In neurotypical children, the home learning environment (HLE) is known to play an important role in the development of academic skills. However, research on the HLE of autistic children is scarce, especially regarding numeracy input and activities. In this study the HLE of autistic preschoolers is examined and compared to the HLE of neurotypical children.

Abstracts

Tuesday, September 3rd, 8.45-9.30h
POSTER AND DEMO SESSION II

Poster presentation (Room: Hall)

35. Family's support in learning: English as a foreign Language in Children with Dyslexia

Presenting author: Marta Álvarez Cañizo

This research evaluates the understanding of dyslexia among families of children with dyslexia, particularly in the context of learning English as a foreign language (EFL) in Spain. It aims to explore the correlation between family knowledge, support, and the academic performance of children with dyslexia, hypothesizing that well-informed and supportive families contribute to better academic outcomes in EFL.

36. Effectively Teaching Students with SEN: a Template Analysis and Comparison between Teachers

Presenting author: Jolien Delafontaine; Co-authors: Koen Aesaert, Sara Nijs

This study investigates and compares mainstream and special education teachers' translations of effective teaching principles into context-bound teaching behaviors, effective for students with SEN. While both teacher groups agreed on the level of effective teaching principles for students with SEN, they differed in their translations of these principle into concrete teaching behaviors considering both their particular students and classroom environment.

Research Blitz with Poster (Room Sala de Cristal ; Chair: Dieter Baeyens)

37. Institutional factors affecting the school-to-work transition of young people with disabilities

Presenting author: Claire Edwards; Co-authors: Kevin Simoes Loureiro, Carmen Zurbriggen, Robin Samuel, Andreas Hadjar

Young people with disabilities likely face greater difficulties when entering the labour market than their non-disabled peers. Social institutions are known to play an important role in the success of the school-to-work transitions of young people. In a systematic review, we summarise insights on different institutional factors associated with the school-to-work transition of young people with disabilities.

38. Dynamic Testing and Educational Plans: Diagnostic Insights for Addressing Arithmetic Difficulties

Presenting author: Ante Pavic; Co-authors: Lydia Küttner, Jürgen Wilbert, Moritz Börnert-Ringleb, Taina Marisa Gabriel, Claudia Maehler, Katja Köhlken, Linda Kuhr, Alea Kreyes

This study aims to investigate whether the use of dynamic testing influences the quality of educational plans by educators addressing the needs of students with arithmetic difficulties compared to traditional status diagnostic methods or reliance on informal observations. Results show no significant effect of dynamic testing on plan quality, but older and female students' plans were of higher quality.

39. Educational Equity in Literacy: an Integrated Educational Program on Students with and without SEN

Presenting author: Giulia Toti & Ilaria Stragapede; Co-authors: Maurizio Gentile, Tania Cerni

We present an action research project aiming at improving text comprehension and production among 268 students, including 58 with special educational needs. We trained their teachers in integrated reading-writing teaching methods and measured pre- and post-intervention students' performance. Results show improvements in writing abilities across the board, suggesting the efficacy of the interventions and the importance of inclusive practices.

Abstracts

Tuesday, September 3rd, 8.45-9.30h
POSTER AND DEMO SESSION II**Research Blitz with Poster (Room: Sala de Cristal ; Chair: Dieter Baeyens)****40. Within pauses: Five children with Low Handwriting Transcription Scores**

Presenting author: Irune Ibarra; Co-authors: Mikel Iruskietia

Efficient writing is characterized by short pauses and longer bursts in children, while those facing transcription challenges often write only letters and syllables between pauses, without forming complete words. We present 10 texts from 5 children with the lowest transcription scores in their class. These texts were analyzed using HandSpy for bursts and pauses, and Anahitza for language measures.

41. Improving Math Attitudes in School-age students: A comprehensive Meta-analysis and Systematic Review

Presenting author: Alice Masi; Co-authors: Sara Caviola, Enrica Donolato, Arne Ola Lervag, Monica melby-lervåg

This meta-analysis reviewed interventions targeting math attitudes in school-age children and adolescents. In total 27 studies were included and revealed significant improvements in math attitudes ($d=0.21$), math performance ($d=0.42$), learning strategies ($d=0.23$). However, the effects at follow-up faded over time, and publication bias may have inflated estimates. These findings underscore the importance of supporting math attitudes interventions in educational settings.

Demo presentation (Room: Sala de Cristal; Chair: Dieter Baeyens)**D2. A demo of Atenxia App: IA as educational technology for improving ADHD and dyslexia**

Presenting author: Francisca Serrano Chica; Co-authors: Maria Carmona, Macarena de los Santos-Roig, Isabel Monte-Tablada, Pilar Blanco García-Lomas, Romina Braier Huino, Emilio Jimenez, Manuel González, José Francisco Bravo Sanchez, Sara Mata

ATENXIA is a scientifically validated intervention in dyslexia and attention problems. This demo shows how the game-based methodology works with individualized sessions based on artificial intelligence (IA) and machine learning to create an optimal intervention adapted to the user. This psychoeducational resource is useful to the entire school population, with and without difficulties, as educational support and reinforcement of learning.

A. Misconceptions about Neurodevelopmental Disorders- Symposium (Room: Salón de actos)

Discussant: Jo Van Herwegen - Chair: Anna-Sophia Dersch

Misconceptions about neurological functioning, specifically neurodevelopmental disorders like autism, are prevalent in different countries. They may reinforce stigmatization of people with neurodevelopmental disorders (Gini et al., 2021). Therefore, it is important to know about the range of misconceptions about neurodevelopmental disorders and about ways to target and reduce these misconceptions. This is in the focus of this international symposium. The first paper of this symposium focusses on researching multiple neuro(developmental) misconceptions in teachers as important socializers. The second paper assesses the prevalence and structure of the most common misconceptions about one specific neurodevelopmental disorder, namely autism. The third paper does not only assess the prevalence of misconceptions but further proposes an intervention reducing them. The included research calls for more inclusion by targeting misconceptions about neurodevelopmental disorders.

Misconceptions about Neurodevelopmental Disorders by Italian teachers: a Mixed-methods Analysis.

Presenting author: Chiara Pecini ; Co-authors: Oriana Incognito, Eva Bei

To date, limited research has explored the prevalence and nature of neuromyths (e.g. misconceptions) about Neurodevelopmental Disorders in the teacher population. The present study investigated Italian teachers' General and Neurodevelopmental Neuromyths using mixed-methods data. The findings of the current study provide motivation for the development of innovative neuroeducation initiatives designed to improve neuroscience literacy among teachers.

Development, Evaluation and Application of the Misconceptions about Autism Questionnaire (MAQ)

Presenting author: Anna-Sophia Dersch ; Co-authors: Leonard Stolzmann, Alexander Eitel

We constructed the Misconceptions about Autism Questionnaire (MAQ). It measures the most common misconceptions about development, course and symptoms of autism and autistic people's needs. We evaluated and applied it with N = 389 participants. Factorial structure and scale reliabilities were acceptable. A majority of participants held at least one misconception about autism. Refutation instructions targeting the misconceptions seem necessary.

From the scientific article to the YouTube video: Debunking myths on special educational needs.

Presenting author: Nadina Gómez-Merino ; Co-authors: Marian Serrano-Mendizábal, Inmaculada Fajardo, Vicenta Ávila, Antonio Ferrer

Misconceptions surrounding Special Educational Needs (SEN) persist among educators, leading to ineffective practices and stigmatization (Gini et al., 2021). Limited handling/access to evidence-based literature often prompts reliance on anecdotal evidence or personal experiences, perpetuating confirmation bias (Rousseau, 2021). The study examines pre-service teachers' common neuromyths, emphasizing belief sources, and implements a pilot intervention with explanatory videos to dispel them.

B. Language and Executive functions in students with neurodivergence (106) - Paper session

Room: Aula 6; Chair: Mario Figueroa

Neurodivergent profiles of executive functions

Presenting author: Ricardo Rosas ; Co-authors: Victoria Espinoza, Camila Martinez

Executive functions are the best predictors of school and work adjustment and general well-being and have therefore become key functions to be assessed in a timely manner. There is little information on executive function profiles in the neurodivergent population. The present study will show comparative profiles of typical populations with ADHD, ASD, Developmental Language Disorder, Learning Disorder and Intellectual impairment.

App-based learning in phonological awareness and reading comprehension: benefits for lower achievers

Presenting author: Verena Hofmann

The purpose of this study was to investigate whether elementary school students make greater progress in phonological awareness and word-reading comprehension when using an app-based learning game in place of traditional lessons, and whether lower achieving students benefit most. Some advantages of app-based learning among lower achieving students were evident, but no general superiority.

Are deaf students flexible in response to task objectives and text structure?

Presenting author: Isabel R. Rodríguez-Ortiz ; Co-authors: Nuria Calet, Pablo Delgado, Damián Hervás Begines, Gracia Jiménez Fernández, Francisco Javier Moreno Pérez, Miriam Rivero-Contreras, Adrián Solís-Campos, David Saldaña

This study examines strategic reading differences between deaf and hearing readers through two experiments. While deaf adolescents exhibited lower text comprehension than their hearing peers, strategic reading behavior, adapting to task goals and processing texts with headings, remained similar between the groups. Monitoring eye movements during tasks revealed insights into their reading approaches.

Oral language intervention can improve children's language and expressive writing skills

Presenting author: Rosanne Esposito

Oral language skills are critical for educational attainment and psycho-social development. Oral language interventions, such as the Oral Language for Literacy (OLLI) 20-week programme, can produce educationally meaningful improvements in the oral language and writing skills of children in the late primary years. Access to interventions to ameliorate language difficulties may improve educational outcomes and employment opportunities.

Exploring current speech-to-text software for children with reading and writing difficulties

Presenting author: Åsa Wengelin ; Co-authors: Sanna Kraft

In this study, we explore the efficacy of speech-to-text (STT) technology for children with reading and writing difficulties. Findings suggest that children with both decoding and spelling challenges produce longer, higher quality texts with STT. However, more research is needed to understand its effectiveness. Currently, we are analyzing participants' linguistic and literacy skills for further insights.

C. Navigating Educational Challenges for Inclusion (102) - Paper session
(Room Aula 9; Evdokia Pittas)

A systematic review of the effects of COVID-19 on the educational performance of children with SEND

Presenting author: Evdokia Pittas ; Co-authors: Elena Papanastasiou

This paper aims to provide a systematic review of the pandemic effects on the educational performance of children with SEND according to children's/youths' and caregivers' perspectives. Findings show clear evidence of a negative effect. The most important findings are found in the difficulties faced by children in homework completion, paying attention, efficiently completing tasks, managing their time, and making progress.

Ethnic disproportionality in the identification of ASD: A national longitudinal study age 5-11

Presenting author: Steve Strand ; Co-authors: Ariel Lindorff

We report the first national longitudinal analysis of identification of ASD, using an England cohort of 550,000 pupils tracked from entry to school through to age 11. Hazard Ratios (HRs) for time to first identification of ASD, controlling for pupils' sex, SES, attainment and social-emotional development at age 5, revealed HRs for Asian groups half those for White British pupils.

Impact of high selective and low selective schools on student's academic self-concept

Presenting author: Reto Luder ; Co-authors: Andre Kunz, Giuliana Pastore, Ariane Paccaud

Inclusive education at secondary school level is a challenging task for school organization. In a longitudinal research-project, the impact of school organisation on academic self-concept of students with and without SEN is investigated. Results show that low selective forms of school organization have a positive impact on the development of academic self-concept for all students.

The Intersection of Multiple Disability Perspectives with Postsecondary Access in Canada

Presenting author: Robert Brown ; Co-authors: Carl James, Gillian Parekh, Erhan Sinay

Using a binary regression looking at postsecondary access with a large dataset of students from Toronto, Canada, this study examined the intersection of two definitions of disability: the school-based record of 'Special Education Needs', and self-identified definitions of disability provided through a census. Both definitions were found to be important and to interact with each other and other variables.

Abstracts

Tuesday, September 3rd, 12.00-13.15h
PARALLEL SESSION

A. Validity and Reliability of Measurement Tools used to Identify Mathematical Learning Difficulties - Symposium (Room: Salón de actos)

Discussant: Pirjo Aunio - Chair: Laura Outhwaite

This symposium will bring together international evidence focused on the development and psychometric evaluation of measurement tools designed to identify those with or at-risk of mathematical learning difficulties (MLD). Paper 1 (Outhwaite) will present a systematic review that synthesizes the current reliability and validity evidence of mathematical assessments and screeners suitable for children aged 0-8 years. Paper 2 (Hellstrand) will discuss the development of the new online Functional Numeracy Assessment Dyscalculia Battery (FUNA-DB) for children aged 9-16 years in Finland. Similarly, Paper 3 (Bezuidenhout) will present the development of the Math Vocabulary Test (MVT) in South Africa with children aged 5-7 years. The symposium discussant (Aunio) will draw out themes across the three presentations and add their reflections on their experiences in developing and using measurement tools for identifying children with or at-risk of MLD.

Psychometric Properties of Early Maths Assessments and Screeners: A Systematic Review

Presenting author: Laura Outhwaite; Co-authors: Pirjo Aunio, Jaimie Ka Yu Leung, Jo Van Herwegen

This systematic review identified 37 mathematical assessments and 22 screeners, which have been evaluated for their psychometric properties for measuring the mathematical skills of children aged 0-8 years. The reliability and validity of these tools were synthesised in relation to common acceptability thresholds. Developing this evidence and improving measurement quality is vital for raising methodological standards in mathematical development research.

Reliability and validity evidence of the online FUNA-DB screener

Presenting author: Heidi Hellstrand ; Co-authors: Pirjo Aunio, Mikko-Jussi Laakso, Anu Laine , Pekka Räsänen, Johan Korhonen

This study describes the reliability and validity evidence of the new online Functional Numeracy Assessment Dyscalculia Battery (FUNA-DB), developed to identify 9-16-year-old children with mathematical learning difficulties (MLD; Räsänen et al., 2021). Our findings provide reliability and validity evidence for FUNA-DB, suggesting it is appropriate for use in Finnish and Swedish and across a broad age span to identify MLD.

Measuring young children's mathematics vocabulary in majority countries

Presenting author: Hanrie Bezuidenhout ; Co-authors: Pirjo Aunio, Anssi Vanhala, Kathleen Fonseca, Elizabeth Henning, Johan Korhonen

The Math Vocabulary Test (MVT) was developed as a screening instrument to identify children with limited mathematics vocabulary, which may predict mathematical learning difficulties. We used two sets of South African data with 900 children aged 5-7 years to produce validity and reliability evidence. Preliminary results support the use of MVT to identify children at risk for mathematical learning difficulties.

B. Experience sampling methods in special education research - Symposium (Room: Aula 6)

Discussant: Friederike Blume - Chair: Carmen Zurbriggen

The experience sampling methodology (ESM) allows to study daily life as it is lived. By collecting data in situ and in real-time several times over several days or weeks, ESM provides valuable insight into intraindividual variability of a person's subjective experience and the corresponding context. Although the ESM is particularly suited to address diversity, this approach has received little attention in special education. This symposium aims to bring together four papers employing the ESM by showing its potential for special education research.

The first paper focuses on students' current motivation in peer contexts during lessons by also considering behavioral problems. The second paper reports on a pilot study in which the ESM was adapted for children and adolescents with intellectual disabilities. The third paper addresses the issue of students' mathematical anxiety in relation to task difficulty. The last paper aims to identify barriers of autistic students using experience sampling.

Students' academic motivation in the classroom, peer-related predictors, and behavioral problems

Presenting author: Carmen Zurbriggen ; Co-authors: Margarita Knickenberg

Students with behavioral problems often have difficulties in establishing peer relationships, yet peers are crucial for academic motivation. In an experience sampling study, we examined the relationships between peer-related predictors and motivation considering behavioral problems. Students reported more motivation when choosing their working partner and experienced their peers as motivators. Behavioral problems could only contribute a small extent of variance.

Using the experience sampling method in the context of intellectual disability

Presenting author: Simone Schaub ; Co-authors: Mireille Audeoud , Matthias Lütolf, Anne Stöcker, Carmen Zurbriggen

This paper explores the potential of the Experience Sampling Method (ESM) in studying the subjective emotional experience of individuals with intellectual disabilities (ID) and limited communicative competencies. The ESM design, developed with 10 children and adolescents with ID, assessed emotional experience in various contexts over 8 weeks. Results indicate successful ESM implementation and highlight the necessary adaptations to the protocol.

Grade four students' mathematics anxiety during math classes

Presenting author: Moritz Herzog ; Co-authors: Miriam Balt

Math anxiety (MA) can be characterized by two cognitive appraisals addressing the relevance and the difficulty of the task. Employing an experience sampling methods approach, a total of 72 grade four students were assessed four times per math lesson over several weeks. Preliminary results indicate that task difficulty is stronger associated with higher state-MA than the task relevance.

Identifying individual barriers of autistic students using experience sampling

Presenting author: Theresa Serratore ; Co-authors: Kathrin Berdelmann, Florian Schmiedeck

The aim is to investigate the occurrence of barriers experienced by autistic and non-autistic children in the school context using an experience sampling approach. Based on the findings, a prototype of an app will be developed that can be used by teachers together with children to support the identification of barriers in everyday school life and to improve inclusion.

C. Motivational, Social and Affective Processes in SEND (107) - Paper session**(Room: Aula 9; Chair: Carmen Berenguer)****Social Inclusion and Resistance to Peer Influence of Individuals With Down or Williams Syndrome**

Presenting author: Gina Nenniger; Co-authors: Andrea Samson, Noémie Treichel, Jo Van Herwegen, Christoph Müller

Individuals with Down syndrome (DS) or Williams syndrome (WS) exhibit specific, but also partially overlapping social and cognitive-behavioral profiles that may affect their interaction with the social environment. Based on parent reports on 89 individuals with either DS or WS, we found no significant differences between groups regarding their social inclusion, peer context characteristics, and resistance to peer influence.

The Relationship Between Disruptive Behavior, Social Acceptance and Classroom Management

Presenting author: Raphael Plutz ; Co-authors: Markus Spilles, Christian Huber

Children's observation of negative teacher feedback influences the social acceptance of the feedback-receiving children. The study investigates the interplay between social acceptance and Classroom Management in inclusive school settings. Utilizing multi-level regression analyses on data from 690 schoolchildren and 35 teachers, the study indicates that low profile Classroom Management may moderate the relationship between disruptive behavior and feedback perception.

Social cognition in incidental contexts: Insights from deafness

Presenting author: Mario Figueroa

The development of theory of mind depends on interaction with the environment and the ability to listen to the conversations of others. Language deprivation or poor auditory skills may affect this process in deaf infants. The results shows that deaf infants are beginning to comprehend some aspects of third-party interactions.

Classroom Interaction Quality Influences Inclusion Perception: Implications for Special Education

Presenting author: Ramona Eberli ; Co-authors: Katharina Antognini, Simona Altmeyer

The study examines how classroom interaction quality; Emotional support, Classroom Organisation, and Instructional Support influences the perception of Emotional Inclusion, Social Inclusion, and Academic Self concept for students with and without Special Education Needs (SEN). Analysing data from 74 inclusive classes, preliminary results suggest varying effects of Classroom Organization and Emotional Support on perceived inclusion for students with and without SEN.

Stereotype threat reduces academic performance in special schools for general learning disability

Presenting authors: Tobias Tempel & David Scheer

A field experiment with children attending schools with a special-needs focus on general learning disability in Germany showed effects of stereotype threat. Academic performance (mathematical and reading ability) suffered significantly when children had to indicate their type of school prior to the test as compared to a control condition. Test anxiety moderated this effect in correspondence with previous research.

Abstracts

Tuesday, September 3rd, 15.45-17.15h
PARALLEL SESSION

A. Enhancing Autism Support in Education (103) - Paper session
(Room: Salón de actos; Chair: Patricia Pérez-Fuster)

Professionals' stories on supporting belonging for autistic children in ECEC

Presenting author: Aino Äikäs; Co-authors: Henri Pesonen, Noora Heiskanen, Elina Viljamaa, Marja Syrjämäki, Eija Kärnä

In this study, we examined how supporting autistic children's belonging appeared in Finnish ECEC professionals' stories using the method of empathy-based stories. We discovered an overarching theme of professionalism including two interconnected themes: 1) established support solutions; 2) willingness to understand the child. Findings suggest that understanding the child as a unique individual who has autism supports favorable belonging.

Interaction with schoolmates in a comprehensive school: autistic adults' experiences

Presenting author: Eija Kärnä ; Co-authors: Anniina Kämäräinen, Anni Kilpiä, Katja Dindar

This study investigated autistic adults' experiences on interaction with schoolmates during their comprehensive school years, as well as the meaning of these experiences for their later life course. The findings reveal that encounters with schoolmates, in formal or informal situations can have positive or negative, long-term impact on autistic adults' lives.

Augmented reality technology games for skills improvement in autistic children

Presenting author: Patricia Pérez-Fuster ; Co-authors: Gerardo Herrera Gutiérrez, Lucia Vera, Jacqueline Nadel, Charles Tijus, Arturo López-Fernández, Emrah Koçak, Seher Büyüksoylu, Ahmet Avcı, Maria Stancheva, Yana Kozareva, Ana Andreeva, Jimmie Leppink

In this study, the effects of an augmented reality technology-mediated intervention program on improving body knowledge, imitation and joint attention skills were evaluated in 23 autistic children with intellectual disability in three special education schools located in Bulgaria, Türkiye and Spain. After 27 sessions with the AR games, participants improved and these improvements were maintained over time.

Executive functioning in preschoolers with Autism Spectrum Disorders without Intellectual Disability

Presenting author: Chiara Pecini; Co-authors: Roberta Iglizzi , Romina Cagiano, Marta Berni, Valentina Viglione, Gabriele Masi, Filippo Muratori, Sara Calderoni, Raffaella Tancredi

Describe the executive profile in preschool children with Autism Spectrum Disorder (ASD) without Intellectual Disability and analyze their relationship between executive functions, evaluated by performance-based and indirect measures, and ASD symptom level, behavioral problems and adaptive functioning.

Abstracts

Tuesday, September 3rd, 15.45-17.15h
PARALLEL SESSION**B. Math Learning and SEND (I) (104) - Paper session (Room Aula 6; Chair: Javier Roca)****Reciprocal associations of fundamental and fine motor skills, executive functions and early numeracy**

Presenting author: Anssi Vanhala; Co-authors: Anna Widlund, Johan Korhonen, Pirjo Aunio

Motor and cognitive development is proposed to be interrelated, but reciprocal longitudinal associations have remained understudied. We examined reciprocal associations between fundamental and fine motor skills, executive functions, and early numeracy among preschoolers. The preliminary results suggest that particularly fine motor skills positively predict later executive functions and early numeracy, while early numeracy is a positive predictor for motor skills in preschool age.

Math anxiety and its relations to arithmetic fluency and number processing in fourth-grade students

Presenting author: Pinja Jylänki ; Co-authors: Anna Tapola, Jonatan Finell, Ellen Sammallahti, Anna Widlund, Bert Jonsson, Riikka Mononen, Johan Korhonen

This study investigated the dimensionality of math anxiety and its relation to arithmetic fluency and number processing in fourth-grade students from Finnish, Finnish-Swedish, and Swedish samples (N = 1006). The results supported a two-dimensional construct of math anxiety with cognitive and affective math anxiety dimensions. Furthermore, math anxiety had a slightly stronger negative association with arithmetic fluency than number processing.

An Investigation and Intervention on Teachers' Knowledge About Dyscalculia

Presenting author: Lisa Bender ; Co-authors: Renkl

Teachers' knowledge about dyscalculia influences how they deal with respective students at school. Our survey among German pre-service teachers revealed that next to a high degree of uncertainty about this disability, teachers also seem to hold some misconceptions. We test an intervention using refutation texts and problem-scenarios to address these misconceptions.

The Mediating Roles of Working Memory and Self-Concept in the Math Anxiety-Performance link

Presenting author: Jonatan Finell

This study delves into the intricate relationship between math anxiety and math performance among 429 fourth-grade Swedish students, utilizing Structural Equation Modelling to explore how working memory and math self-concept mediate this link. We analyse this relationship both cross-sectionally and longitudinally, considering gender as a moderating factor. This study provides insights into the underlying mechanisms of the anxiety-performance link.

Developmental Relations of Motivational-beliefs in Math across Educational Transition

Presenting author: Anna Widlund; Co-authors: Markku Niemivirta, Heta Tuominen, Johan Korhonen

Grounding on situated expectancy-value theory, this study investigated developmental trajectories of students' motivational beliefs in mathematics (self-concept, interest, utility value, effort- and opportunity cost) across the critical educational transition from primary to lower secondary school (i.e., from Grade 6–7 in Finland). The findings revealed that students' motivation declined across the transition, particularly among those initially highly motivated.

Collaboration of 4-5-year-old SEN children in a hands-on problem-solving task

Presenting author: Kati Sormunen; Co-authors: Virpi Yliveronen , Marja-Leena Rönkkö, Teija Koskela

This presentation explores a study of 4-5-year-old SEN children collaborating on a tower-building task independently from a broader study involving 49 children. A team of four children engaged in a problem-solving process analysed using video coding. Co-occurrence network analysis, visualised with VOSviewer, highlighted the relationships between interaction, action, and problem-solving. Materiality, non-verbal communication, peer support, and examples were pivotal.

Abstracts

Tuesday, September 3rd, 15.45-17.15h
PARALLEL SESSIONC. Challenges for Enhancing Assessment and Intervention in SEN (108)
Paper session (Room: Aula 9; Chair: Eva Rosa)**Raising educational outcomes for individuals with special educational needs**

Presenting author: Jo Van Herwegen; Co-authors: Thomas Masterman, Julie Dockrell, Rebecca Gordon, Chloe Marshall, Michael S.C. Thomas

This study seeks to enhance our understanding of effective interventions for diverse SEND needs and whether interventions should be condition specific or needs specific, exploring variations in context and implementation through a systematic review and meta-analysis. A total of 499 records were included, with data extraction currently underway.

A Meta-Analysis of Validity and Effectiveness of Screening Assessment Tools within Three-Tier Model

Presenting author: Serap Keles ; Co-authors: Dieuwer ten Braak, Åste Marie Mjelve Hagen, Monica melby-lervåg

The objective of this systematic review and meta-analysis is to assess the validity and effectiveness of screening and progress monitoring assessments within the three-tier model across a range of academic outcomes (overall academic performance, language, literacy, and mathematics). Overall results revealed a lack of validation studies of screening tools for placing young children within the three-tier system.

The home environment & educational attainment in preterm children: a systematic review.

Presenting author: Jorn Othmer ; Co-authors: Mariana Rajaosaraiva, Elke Baten, Petra Warreyn

Preterm birth (PTB) is associated with poorer academic abilities and research shows that SES interacts with this relationship. It is yet unclear why precisely this is the case. Therefore, this systematic review focuses on the more malleable social factors beyond SES to evaluate how parental, home and other social factors might shape the relationship between PTB, SES and academic abilities.

Efficacy of language interventions in children with neurodevelopmental disorders: A meta-analysis

Presenting author: Enrica Donolato; Co-authors: Enrico Toffalini , Kristin Rogde, Anders Nordahl-Hansen, Arne Lervåg, Courtenay Frazier Norbury, Monica melby-lervåg

This meta-analysis examines the efficacy of oral language interventions in children with neurodevelopmental disorders. Thirty-eight eligible studies showed a mean positive effect on oral language skills at post-test ($d=0.27$) and follow-up ($d=0.18$). Moderator analysis showed that longer sessions were more beneficial than brief sessions, and publication bias revealed that mean effects were overestimated. Clinical and research implications are discussed.

Exploring the Utility of Tau-U Variations in Single Case Experimental Designs

Presenting author: Timo Lüke; Co-authors: Moritz Börnert-Ringleb, Jürgen Wilbert

This study investigates the effectiveness of four Tau U variations in analyzing data from Single Case Experimental Designs (SCEDs) using Monte-Carlo simulations. It assesses their statistical power and alpha-error rates under various conditions, highlighting the importance of selecting appropriate analytical methods based on SCED design parameters. The findings guide the robust assessment of intervention effectiveness, enhancing SCED research validity.

Abstracts

Wednesday, September 4th 8.45-9.30h
POSTER AND DEMO SESSION III
Poster presentation (Room: Hall)
42. Supporting staff in implementing new practices related to communication with people with ID

Presenting author: Veyre Aline

Some people with intellectual and developmental disabilities have difficulty making themselves and their environment understood. The project aimed to support staff in implementing new professional practices related to the use of Alternative and Augmentative Communication. While staff report that they have improved their skills throughout the project, few interventions have been implemented over the long term.

43. Preventing elder abuse: Development of a curriculum for older adults with intellectual disabilities

Presenting author: Mireille Tabin

Acknowledging the lack of effective interventions to prevent elder abuse in people with IDD, this study focuses on the development of a new intervention for this population. Developed for English and French-speaking contexts, this study describes, evaluates and reflects on the different steps taken to prevent a research-to-practice gap in the development of the intervention.

44. Inattention in Sight: Fostering Learning with ADHD by Digital Media

Presenting author: Luciana Maria Cavichioli Gomes Almeida; Co-authors: Tim Kühl

The PhD project aims to enhance learning with digital media for students with ADHD symptoms by identifying design elements that improve attention, proposing an intervention, and evaluating it in a laboratory setting. The primary dependent variable measured will be transfer, with mind wandering considered as a potential mediator. Expected results include enhanced sustained attention and, consequently, improved transfer.

45. Improving university teaching: service-learning for young people with disabilities.

Presenting author: Vicenta Ávila; Co-authors: Laura Gil Pelluch

This paper is part of educational innovation project[1] designed to improve the quality of the learning and teaching process in the Master's Degree in Special Education at the University of Valencia. One of the lines of the project is focused on the use of service-learning methodology. In this context, the implementation of activities among the Master's students and young people with disabilities has been proposed. Two of these activities will be presented: a) activities aimed at improving the physical conditions of young people with cerebral palsy, b) adaptation of easy-to-read documents for workers of a Special Employment Centre. [1] This study was conducted with the assistance of emerging educational innovation projects -2023 (University of Valencia)- UV-SFPIE_PIEE-2735995.

46. EmpowerED. Empowering novice teachers in dealing with challenging behavior: interactional approach.

Presenting authors: Kristel Stinckens, Claudia Lento

Starting primary school teachers don't feel strong enough to deal with pupils' difficult to manage behavior. They risk emotional exhaustion. It could end their teaching careers. EmpowerED researches this problem from the perspective of the teacher-pupil relationship and the interactional approach. A theoretical framework outlining the dynamics was developed in 2022-2023, based on a scientific literature study.

Abstracts

Wednesday, September 4th 8.45-9.30h
POSTER AND DEMO SESSION III

Poster presentation (Room: Hall)

47. Literacy, Reading Habits and Internet Use in Adults with Intellectual Disabilities

Presenting author: Gabriela I. Coñoman; Co-authors: Vicenta Ávila

This study examines the Internet usage, self-perceived literacy, and reading habits of adults with intellectual disabilities during employment transition. The study employed a cross-sectional approach and an online survey. The individuals who score higher on the literacy scale are expected to participate in a wider range of online activities, exhibit better skills and a higher frequency of reading both digital and print media.

48. Effects of Out-of-School Learning Places on the STEM Biographies of Elementary School Students

Presenting author: Jan R. Schulze; Co-authors: Annkathrin Wenzel, Ricardo Puppe, Lena Luise Crummenerl, Eva Blumberg

As the United Nations' 2030 Agenda points out, our society will inevitably be challenged by environmental changes. Declining interest of pupils in STEM education and alarming research results of students' science literacy contrasts with contemporary challenges of sustainability education. The present study aims to improve students' STEM biography through out-of-school learning to counteract their declining interest in science education.

49. How students with ADHD adapt to reading task goals and text structure: An eye-tracking study

Presenting author: Pablo Delgado; Co-authors: Paula Barea-Arroyo, Gema Erena-Guardia, Vanessa Fernández-Torres, Joaquín A. Ibáñez-Alfonso, Martina Micai, F. Javier Moreno-Pérez, Isabel R. Rodríguez-Ortiz, Miriam Rivero-Contreras, Adrián Solís-Campos, David Saldaña

This ongoing two-experiment study aims at examining whether students with ADHD adapt their reading strategies to task goals (i.e., understanding an initial statement vs answering a question) and text structure (i.e., presence vs absence of headings) as their typical-developing peers do. Students' eye movements and comprehension outcomes will be analysed. We expect ADHD students to show poorer adaptive strategies.

50. Footprints of Writing Struggles in Primary Educations: Insights from a Pseudoword Spelling Task

Presenting author: Mario Figueroa; Co-authors: Naymé Salas, Mariona Pascual

Our aim was to investigate whether basic phonological skills still help distinguish between at-risk and typical students in 3rd and 5th grade, by tapping directly on grapheme-phoneme mapping with a new dictation pseudoword spelling task. Our results showed that phonological skills remained crucial for distinguishing between at-risk and typical students. This task can serve to screen for difficulties within schools.

Abstracts

Wednesday, September 4th 8.45-9.30h
POSTER AND DEMO SESSION III
Poster presentation (Room: Hall)
51. Special educators' perceptions of collaboration to support students in a Swedish municipality

Presenting author: Charlotte Jakobsson

The opportunity to receive early support would be beneficial for students with special educational needs. Swedish schools are criticized for not providing early support. Special educators have in their profession a key role regarding support initiatives and they should identify needs and contribute to students receiving support. This study aims to investigate special educators' opportunities to work supportively and preventively.

52. Developmental relations between mathematics anxiety and arithmetic fluency

Presenting author: Johan Korhonen; Co-authors: Ellen Sammallahti, Anna Widlund, Bert Jonsson

Although the negative link between math anxiety and performance is well documented, there is a lack of longitudinal studies investigating elementary school students. Therefore, we investigated developmental relations between math anxiety (MA) and arithmetic fluency (AF) in three cohorts across 3 timepoints (N=856). Multigroup modelling showed that poorer AF in the beginning of the school year increased MA across grades.

53. Promotion of social and emotional development in inclusive biology education

Presenting author: Daniela Nussbaumer

A planning aid for the interdisciplinary promotion of social and emotional development in biology education is conceptualized. The integration of subject-specific and developmental orientation holds a didactic challenge. The paper is designed as a literature-based study in which effectiveness factors of prevention of social and emotional development are combined with subject orientation of the Swiss Curriculum (Lehrplan 21) in biology.

54. Relationship between students' mental health and pro-environmental behavior

Presenting author: Moritz Herzog; Co-authors: Gino Casale, Johannes Weber

Recent research suggests that adolescents' mental health (MH), pro-environmental behavior (PEB), and sustainable motive alignment (SMA) are interrelated. This work-in-progress study investigates the relation between MH, PEB, and SMA as well as sustainability knowledge and attitudes. The results may inform integrated PEB and MH interventions and further underpin recent approaches addressing PEB in schools.

55. Teaching of Reading in Children with Intellectual Disabilities Using Materials Developed with 3D Printers

Presenting author: Magdalena Fernández-Pérez; Co-authors: Patricia Sancho, Francesc Antoni Bañuls-Lapuerta

This study analyzes the impact of 3D printing on the teaching of reading to children and young people with intellectual disabilities. The intervention was carried out in educational centers in the Valencian Community over the course of an academic year. The results indicate that the use of 3D materials enhances students' motivation and participation.

Demo presentation (Room: Sala de Cristal; Chair: Evdokia Pittas)
D3.Pictogram Room: augmented reality technology for body knowledge, joint attention and imitation

Presenting authors: Lucia Vera, Daniel García Arocas; Co-authors: Gerardo Herrera Gutiérrez, Patricia Pérez-Fuster, Marcos Fernández Marín

Pictogram Room is a free software package that uses augmented reality to provide a set of 80 video games to train autistic students on body knowledge, joint attention, and imitation funnily and interactively. The software runs on a computer and needs a 3D depth sensor for body motion tracking (i.e. Zed2). The tool authors will show the most emblematic games.

Abstracts

Wednesday, September 4th, 9.30-10.30h
PARALLEL SESSION

A. Dynamic Testing in Special Education: Current Developments in Research and Practice
- Symposium (Room: Salón de Actos)

Discussant: Marco Hessels - Chair: Moritz Börnert-Ringleb, Jürgen Wilbert

Dynamic Testing (DT) is discussed as a promising alternative to test-diagnostic approaches in the context of special education, as it enables a description of student's learning potential and may inform recommendations for educational practice. However, evidence on the usefulness of DT in practice is still limited. The symposium will discuss current research on the usage of DT in SEN-related fields.

Evaluating the usefulness of dynamic testing of arithmetic abilities for educational planning

Presenting author: Taina Marisa Gabriel, Moritz Börnert-Ringleb ; Co-authors: Lydia Küttner, Alea Kreyes, Claudia Maehler, Jürgen Wilbert

Dynamic testing (DT) is discussed as an approach that allows tailoring instruction to students' needs. This study investigates the usefulness of a domain-specific dynamic math test for educational planning. Teachers were assigned to different conditions (DT, traditional test, control) and authored educational plans based on these approaches. Results regarding differences in the educational plans (N = 99) are presented

Dynamic Evaluation of Reasoning: Is learning potential specific of a domain or a global phenomenon?

Presenting author: Sara Mata ; Co-authors: Macarena de los Santos-Roig, Bart Vogelaar, Isabel Monte-Tablada, Sergio Moreno, Maria Carmona, Francisca Serrano Chica

This work aims to validate the Spanish adaptation of the Analogical Reasoning Dynamic Evaluation Test while estimating whether the learning potential indices are general or specific to the task in children who came from different ability profiles (typical development vs learning disabilities). Psychoeducational implications are discussed.

Testing of Instructional Needs with a Training-only Dynamic Test

Presenting author: Jochanan Veerbeek ; Co-authors: Bart Vogelaar

This study introduces a training-only dynamic test (ToDT) to evaluate instructional needs in 66 fourth and fifth-grade students. Results show strong correlations among ToDT scores, teachers' estimations, and standardized test results, revealing distinct instructional needs and outcomes based on ToDT classifications. The study underscores ToDT's potential for efficiently gauging instructional needs and providing valuable insights into diverse outcomes.

A dynamic screening instrument utilizing serious gaming for first year secondary school students

Presenting author: Bart Vogelaar ; Co-authors: Lia Fischer, Jochanan Veerbeek

The pilot study examines a dynamic screening tool's suitability as an alternative to static school tests in the Netherlands. It assesses first-year secondary school students across five domains using a serious gaming format. The study reveals that trained students improved significantly in reading comprehension and planning compared to untrained peers. The research highlights screening tools' potential for understanding children's potential.

Abstracts

Wednesday, September 4th, 9.30-10.30h
PARALLEL SESSION

**B. Empowering Inclusive Education: Teacher Training, Expectations, and Collaboration
 teacher perceptions (101) - Paper session**

(Room: Aula 6; Chair: Mario Figueroa)

Influence of labels for students with learning problems on teachers' expectations and stereotypes

Presenting author: Linda Kashikar ; Co-authors: Michael Grosche, Timo Lüke

Labeling students with learning problems with a diagnosis can negatively influence teachers' perceptions of these students. We examined 1. whether labels for students with learning problems harm teachers' academic performance expectations of these students and 2. whether this is related to stereotype activation. Results show that the 'Learning Disability' label has a partially negative influence on teachers' perceptions.

Effects of a Collaborative Teacher Education on Pre-Service Teachers' Inclusion-Related Self-Concept

Presenting author: Jan R. Schulze ; Co-authors: Eva Blumberg, Frank Hellmich

Teacher qualification encompasses a spectrum of professional development for future educators as they seek personal improvement. Professional self-concept and teacher collaboration are two key competencies that have been largely overlooked in teacher education, despite their awarded importance in research. Our following study examines the impact of a university training on collaboration in inclusive teaching for pre-service teachers' professional self-concept development.

Interprofessional Collaboration in Special Education Contexts – A Scoping Review

Presenting author: Helene Hallaråker, Christian Brandmo ; Co-authors: Elisabeth Hesjedal

Interprofessional collaboration is an approach used in several public services where individuals with different professional backgrounds collaborate with a common goal to solve joint tasks (Reeves et al., 2010). This systematic scoping review identified and examined the literature on interprofessional collaboration in educational settings, focusing on how Educational Psychological Services (EPS) implement such collaboration.

Teaching quality for students with SEN: different or the same as in mainstream classrooms?

Presenting author: Mireille Tabin ; Co-authors: Karolina Urton, Anna-Katharina Praetorius, Elisabeth Moser Opitz

This review explores if the dimensions of the MAIN-TEACH Model, which evaluates teaching quality in mainstream classrooms, are used to assess teaching quality in inclusive education with regard to special education needs. The findings reveal a scarcity of research on specific dimensions and suggest a need for further investigation into criteria for evaluating teaching quality in inclusive contexts.

Raising educational outcomes for individuals with SEN: Teachers' views on evidence

Presenting author: Jo Van Herwegen ; Co-authors: Catherine Antalek , Michael S.C. Thomas, Thomas Masterman, Chloe Marshall, Rebecca Gordon, Julie Dockrell

This study reports on data from 36 interviews with various educational professional in the UK which explored the current use of targeted interventions across different settings (primary vs secondary schools as well as mainstream versus special schools) and the evidence practitioners use to implement and review these targeted interventions used with various students with special educational needs.

Wednesday, September 4th, 9.30-10.30h
PARALLEL SESSION

C. Math Learning and SEND (II) (105) - Paper session

(Room: Aula 9 ; Chair: Carmen Berenguer)

Teaching mathematics to primary school students with Down syndrome

Presenting author: Erica Ranzato; Co-authors: Unta Taiwo, Jo Van Herwegen, Andrew Tolmie

This study employed focus groups to explore the maths school environment of primary school students with Down Syndrome (DS). The study investigated the experiences of primary school educators working in English mainstream settings when supporting mathematical abilities of a student with DS. Specifically, it investigated the challenges faced by the participants and the teaching strategies and learning resources employed.

Effects of Mathematical Word Problem-Solving Interventions: A Systematic Review and Meta-Analysis

Presenting author: Terhi Vessonen ; Co-authors: Pirjo Aunio, Anu Laine

The objective of this systematic review and meta-analysis was to evaluate the effects of mathematical word problem-solving interventions among elementary school-aged children, and the extent to which these effects vary in terms of moderators. Preliminary meta-analyses indicated word problem-solving interventions to have moderate weighted overall effects (Hedges' $g = 0.66$, $p < .01$).

Identification of protective factors in learning sixth-grade mathematics in children with DLD

Presenting author: Tijs Kleemans ; Co-authors: Eliane Segers, Constance Vissers

In the present study we aimed to identify protective factors in learning sixth grade mathematics in children with Developmental Language Disorder. Statistical analyses on both the group level and individual level were performed. Results indicated that statistical analyses on the individual level are required to detect protective factors in children with DLD when it comes to learning sixth-grade mathematics.

Longitudinal relations of early numeracy, language and executive function components in preschoolers

Presenting author: Natalia Stalchenko ; Co-authors: Anna Widlund, Ritva Ketonen, Pirjo Aunio

This study investigates longitudinal associations of specific components of early numeracy, language, and executive function skills in 3-6-year-olds. Preliminary findings suggest: expressive language ($\beta = 0.24$, $p < 0.01$) predict numerical relational skills ($R^2a = 0.67$), while letter-naming ($\beta = 0.23$, $p < 0.05$) predict counting skills ($R^2a = 0.49$). A cross-lagged structural equation model is presented at the conference.

Wednesday, September 4th, 12.00-13.15h PARALLEL SESSION

A. Navigating the digital world when having SEN - (Invited symposium EARLI SIG2)

Chair: Eliane Segers

(Room: Salón de Actos)

In this invited symposium, we will make the connection between SIG2 and SIG15, by examining to what extent people with SEN may face additional challenges when navigating the digital world. Several meta-analyses have pointed at differences between understanding paper vs. digital texts. Furthermore, it has been shown that when learning in digital environments, having SEN may pose an additional challenge. As this research topic is heavily understudied, the current symposium will include four studies that shed further light on this issue.

Survey of Digital Skills of Adults Across a Variety of Locations

Presenting author: John Sabatini

We examine results from adults who completed a multi-test battery of digital assessments used widely in North America: The Northstar Digital Literacy Assessments system. For this study, we were provided with data of ~50,000 examinees, most of whom completed all 14 subtests. Initial analyses show differences in skills based on access location but more exploration needs to be done.

Struggling readers in digital reading contexts – the “knows” and “don’t knows.”

Presenting author: Øistein Anmarkrud ; Co-authors: Oscar Skovdahl, Monica melby-lervåg

Digital reading is an important part of school for all students, including those who already struggle with reading. We present results from a systematic review of struggling readers in digital reading contexts. More specifically, we examine how digital reading is operationalized, how struggling readers are defined in this literature, and what kind of research designs that are used.

Print and digital reading habits and comprehension in children with special education needs

Presenting author: Ladislao Salmerón ; Co-authors: Lidia Altamura García, María Carmen Blanco-Gandía, Laura Gil Pelluch, Amelia Mañá, Sandra Montagud, Cristina Vargas Pecino

Children with special education needs (SEN) exhibit lower reading habits, potentially impacting text comprehension. While digital texts are thought to motivate students with SEN, research suggests digital media negatively influence comprehension. We explored the link between habits, media, and comprehension in students with SEN, revealing a negative relationship with academic digital habits and a positive association with leisure print reading.

Children with SEN's comprehension of multiple digital documents

Presenting author: Eliane Segers ; Co-authors: Llesbeth Crajé-Tilanus, Anouk Bakker, Aurora Troncoso-Ruiz, Jos Keuning, Marco van de Ven

We examined how digital exposure is related to sustained attention and reading comprehension in children, especially those with SEN. Participants were 203 fifth graders; 13 were diagnosed with dyslexia and 8 with ADHD. Preliminary results show a negative relation between social media use and reading comprehension. Social media use may be an additional risk factor for children with ADHD.

Wednesday, September 4th, 12.00-13.15h PARALLEL SESSION

B. Behavioral Dynamics and Transitions in Education (109)

Paper session (Room: Aula 9, Chair: Eva Rosa)

Preschool teachers and parents of children with disabilities in transition-related parent meetings

Presenting author: Daniel Then ; Co-authors: Sanna Pohlmann-Rother

The present study focuses on the way preschool teachers perceive their relationship with parents of children with disabilities in counseling sessions addressing the child's preschool-to-school-transition. The data were collected using qualitative guideline-based interviews with n=22 German preschool teachers and analyzed using qualitative content analysis. The results show that preschool teachers do not see parents as equal partners in the sessions.

School-to-work-transition of low achieving students in regular and special education classes

Presenting author: Markus Neuenschwander; Co-authors: Ariana Garrote

The study investigates to what extent school type, student achievement and motivation, and teacher and parent support affect the assignment to vocational education training (VET) after 9th grade. Assessments with 241 low achieving students from regular classes and 129 students from special education classes showed that school type, migration background, and student motivation were significant predictors for VET-assignment.

Development of a short version of the German Developmental Behaviour Checklist for teachers (DBC-T)

Presenting author: Carmen Zurbriggen & Friederike Hell ; Co-authors: Christoph Müller

The Developmental Behaviour Checklist for teachers (DBC-T) is an internationally established, valid and reliable instrument to assess challenging behaviour in young people with intellectual disability. Due to the extensiveness of the instrument (94 items), we developed a short version of the German DBC-T (35 items). Preliminary findings indicate that the short version possesses good psychometric properties.

The effectiveness of inclusive teaching practices for students with ADHD in post-secondary education

Presenting author: Dieter Baeyens ; Co-authors: Elke Emmers, Jeanne Lagacé-Leblanc

Reasonable accommodations fail to show objective effects in post-secondary education students with ADHD. Therefore, Universal Design for Learning suggests flexible use of inclusive teaching practices but has yet to show effectiveness. 325 students with ADHD, rated the presence of ADHD symptoms and effectiveness of 49 practices. Two-mode partitioning revealed 4 clusters of (likely) effective, inclusive teaching practices for all ADHD-profiles.

Behavioural problems and peer experiences of students in secondary school: A latent profile analysis

Presenting author: Ariana Garrote; Co-authors: Christoph Müller, Markus Neuenschwander

The study examined the association between profiles of behavioural problems and peer experiences among 370 low-achieving adolescents enrolled in both regular and special education classes. Latent profile analyses indicated that most students were well-adjusted, while two fifths displayed internalizing problems, and a small group displayed severe externalizing problems. The findings revealed disparities between teachers' and students' perception of peer experiences.



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