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Buch der Abstracts

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Keynote 1 / 1

Keynote 1: Data-based decision making –A puzzle with many pieces

Under what conditions does assessment contribute to effective teaching in heterogeneous learning groups?

In this presentation, two overarching requirements for the success of data-based interventions are highlighted: Firstly, the aspect of suitable instruments and secondly, the professional skills of teachers.

Suitable instruments: To implement assessment-based differentiation in school practice, structured programs with clear guidelines for teachers have proven to be effective (Aust et al., under revision; Stecker et al., 2005). Moreover, it has been shown that teachers are committed to using data when they are provided with evidence-based materials for differentiated support (Hebbecker et al., 2022). We therefore need integrated approaches that include both assessment and intervention measures and where these two aspects are highly aligned (Connor et al., 2019).

Teachers'professional skills: Beyond the specific instruments, teachers must also receive intensive training in implementing data-based interventions. Longer-term teacher-training programs have proven to be necessary for gaining competence in both data literacy and the design of differentiated instruction using evidence-based methods (Ehlert & Souvignier, 2023). Not least, since the greatest challenge for data-based decision making (DBDM) is to translate assessment data into appropriate pedagogical action (Visscher, 2021).

How can the various pieces of the puzzle for a successful implementation of DBDM be realized in school practice? To implement learning progress assessment, differentiated instruction and comprehensive professionalization processes under the conditions of limited resources, technology-based services are required to adequately support teachers (Ehlert et al., 2025). The presentation will introduce an exemplary concept in which digital solutions were implemented in the context of assessment, translation of data into instructional decisions and professional development. It illustrates how an integrated concept of assessment, differentiated reading support and intensive support for teacher change can be implemented into school practice.

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Keynote 2 / 2

Keynote 2: Rethinking executive function programs for children: identifying effective contextual strategies and unraveling their working mechanisms

Executive functions (EF) are critical predictors of long-term outcomes in children, including academic success and socio-emotional development. In response, numerous preventive and therapeutic programs have been developed to enhance EF skills. Early generations of these programs focused on direct EF training but yielded limited long-term effects and struggled with the transfer of skills from clinical settings to everyday contexts. In recent years, a shift has occurred toward embedding EF interventions within naturalistic environments—particularly classrooms—while simultaneously leveraging the quality of teacher-student interactions as a fertile ground for EF development.

These newer, multi-component interventions show promising results. However, they have often been constructed based on expert opinion rather than a systematic understanding of which contextual strategies are truly effective and through which mechanisms they work. In this keynote, we present a comprehensive investigation into the causal impact of contextual strategies on EF development. By disentangling the active ingredients within EF programs, we aim to clarify why certain interventions outperform others. This holds the potential to inform the next generation of EF interventions—ones that are not only more effective but also more scalable and fully grounded in evidence.

Session 1 / 11

Intervention in executive functioning with gamification for children with ADHD: Preliminary results

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The main reasons why ADHD is a socio-health priority and with great impact at a psycho-educational level are its high prevalence, along with its disruptive manifestation, which generates important repercussions in the lives of patients (academic: poor school performance, school failure, which can severely affect the child's self-esteem; but also, family, social and emotional). Therefore, having scientifically validated intervention tools that improve cognitive processes becomes a fundamental objective demanded by education and society. In this study, the intervention system that is intended to be validated as a basis for training in executive functions (EF) would work on functions related to: attention, working memory (auditory and visual), planning, inhibition and flexibility. All of this through gamification, machine-learning and artificial intelligence (AI), to adapt to the relevant and current technological advances of new trends in psychoeducational intervention.

It is necessary to make significant progress in the search for intervention measures, scientifically supported, using the appropriate research methodology, with a focus on theoretical and applied research, and promoting transfer to clinical and psychoeducational practice. For those reasons, we analyse the effect of an intervention in EF designed in 16 individual sessions of 20-30 minutes each. The intervention was structure through an App that integrates the intervention sessions using gamification. This App allows the difficulty to be adapted to the profile of each student, thanks to the use of machine-learning techniques and AI. A pre-post intervention design was applied with 25 children with and without ADHD from 8 to 12 years old. Learning potential of EF and reasoning, and some scores on traditional assessment EF tests were measured. Results and implications will be discussed in the conference. The App with the intervention program is expected to be a useful tool, based

on the adapted learning profile, which will increase its potential for intervention and monitoring of participants' progress. It will be made available to the psychoeducational community once validated, with great impact of scientific and technical transfer to society.

Keywords: ADHD; executive functions; intervention; learning potential.

Postersession / 12

Your Breakthrough-Smart solutions for smart minds: An Erasmus + project

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The YOUR BREAKTHROUGH (YBT) project seeks to improve the educational practices carried out with high abilities students in school, mainly in Primary and Secondary, providing them with enriching attention, adequately accompanying their growth and favouring the development of their potential.

Our society currently faces a significant lack of teacher training in this aspect, a certain heterogeneity in terms of legislation and diagnosis between different countries and educational systems, as well as a limitation of resources and measures for daily work with highly gifted students.

This represents a real challenge for the educational system and our society, therefore, YBT will assist and provide tools to all those agents who work with these students, facilitating the detection, monitoring and support of high abilities, in turn providing training to the teachers involved in their education, to the Guidance Departments and Management Teams, in a way that allows them to improve the management of their center in this aspect, without forgetting the rest of the students.

The development of interactive resources and creation of spaces for enrichment will be essential in improving attention to high abilities, allowing self-discovery of the talents of children and young people. Likewise, the meeting with students and educational agents from different centers in Europe will undoubtedly provide a broader vision of the reality of educational centers and will facilitate their development and growth at a local, national and international level.

Keywords: Gifted students; European education; detection; training.

Postersession / 13

Dynamic testing with The Spanish Version of the DART

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Analogical reasoning -a subtype of inductive reasoning-, is a cognitive process in which information from a known source is identified and transferred to a new information system (Vogelaar et al.,

2019b). This is considered a highly relevant component in school performance, learning and solving problems in daily life (Sternberg, 1977; Vogelaar et al., 2021) due to its close relationship with learning and intelligence. In this way, being able to have precise evaluation instruments that analyse analogical reasoning but also the learning and transfer ability in tasks on this type of turn into a good challenge for dynamic assessment researchers. In the present study, an adaptation of the Dynamic Testing of Analogical Reasoning (DART) by Volegaar et al., (2017, 2019a, b,2020, 2021) in the Spanish population was carried out. In this study, a total of 138 children who attend between 3rd and 6th grade of Primary School was evaluated with the Dynamic test. Children had different ability profiles (learning disabilities vs. typical development). A quasi-experimental (2 x 2 x 2) pretest-posttest with control groups design was used. On one hand, two groups of participants were children with learning difficulties and children with typical development. On the other hand, children were randomly assigned to two experimental conditions: training and control. Between trainings (from 1 to 2) we also analysed the total number of hints needed. Finally, all children were assessed in two moments (pretest and posttest). Repeated measures ANCOVAs (with age and IQ as covariables) were applied for dependent variables: number of correct answers and the number of correct transformations. Results have revealed that the Spanish version of the DART behaves similarly to the results of the original Dutch studies (Vogelaar & Resing, 2016; Vogelaar et al., 2017; Vogelaar et al., 2019a, 2019b). Our data provide some evidence of the effectiveness of the training phases and the capacity of the test to measure learning potential (LP), as the children in the groups that received the trainings showed a significantly greater progression from pretest to posttest than children who did not receive the training. The results also show a tendency towards a decrease in the number of hints from training 1 to training 2. Results show similar levels of LP and similarity in the need for help (number of hints) received during trainings between children with LD and TD, coinciding with the original studies of the test. In conclusion, this study expands the body of research on the Dynamic Assessment methodology, being this the first attempt to adapt and validate the Spanish version of the DART. The data support its use in Spanish children with LD and TD, being a tool that allows evaluating analogical reasoning and LP in school-age children. Considering the relevance of this skill in academic performance, it is important to be able to provide psychoeducation professionals with this type of tools that facilitate the diagnosis of children with possible difficulties and offer additional information about the ability to learn.

Keywords: Dynamic Assessment, learning potential, analogical reasoning, inductive reasoning, children.

Session 1 / 14

ExeFun-READ Intervention: Children's Executive Functioning and Language Abilities Related to Reading Comprehension via

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The primary objective of the paper is to evaluate the effectiveness of a cognitive stimulation program, ExeFun-READ (a program focusing on executive functioning stimulation via the L1 (Slovak language) curriculum with a specific focus on enhancing reading comprehension). The program is explicitly based on the assumed bi-directional relationship between executive functioning and language abilities related to reading comprehension. The program is domain-specific; the curriculum of L1 (Slovak) is a curricular area in which cognitive mediation occurs. Keeping in mind ecological validity, ExeFun-READ was designed primarily for educational purposes, specifically professional tutoring for low-performing students. The intervention consists of 30 units; each unit lasts for 45–60 min. In total, 151 low-performing students attending grade four from seven elementary schools took part in the project. The study employs a pre-test–training–post-test design with three conditions: experimental, active control, and passive control. In the current study, the intervention led to improved language abilities related to reading comprehension. Significant improvements were found in vocabulary (semantic knowledge), completion of sentences (syntactic knowledge), and classification of terms (verbal fluency and inferencing) in the group of children that received the ExeFun-

READ intervention. In terms of executive functioning, the improvement only extended to switching fluency.

Children's Engagement in Dialogic Reading Activities –First Results

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Dialogic reading (DR) is acknowledged as an effective method to enhance children's language and cognitive abilities in a daily setting (Gosen et al., 2015; Kappeler Suter & Plangger, 2018) and it should be designed as adaptive as possible to the children's learning requirements (Beckerle et al., 2024). In this context, a relevant factor is the children's engagement in the DR activity (Decristan et al., 2020; Fredricks et al., 2004). It is defined as the child's internal involvement with and/or external participation in interacting with their environment (Decristan et al., 2020; Kaderavek et al., 2014; Laevers, 2007; McLaughlin et al., 2005). In addition to the differentiation in cognitive, emotional and behavioral engagement (Fredricks et al., 2004), the concept is further divided into interactive engagement and active engagement (Son et al., 2023).

Despite the extensive description of the concept and the development of fundamental observational methods, the question of the role of different engagement types in DR activities remains unresolved. The „Rating Scale for Assessing Children's Engagement in Dyadic Learning Situations –Dialogic Reading (R-kEnga –DL)"is especially developed to answer this question adapting existing observational methods (Kaderavek et al., 2014; Laevers, 2007; Son et al., 2023). It is designed for video analysis, assigning six rating values for each video on a five-point scale using indicators operationalizing children's engagement. The six items to be rated are comprised of a combination of (1) interactive or active and (2) cognitive, emotional or behavioral engagement. The presentation will illustrate first results and various types of children's engagement in the current sample (n = 64).

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Education considered as an ʿArtefactʾ

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In my presentation I will discuss Herb Simon's theory of the 'Sciences of the Artificial'. I will suggest that it is possible to construe 'Education'as an Artefact of our encounters with the environment of social, political and economic policies.
In light of this perspective, we might reconsider the vulnerability of teachers and young people, and whether we are victims of forces beyond our control or if we have agency and levers for change.

Postersession / 19

Nonverbal Assessment of Vocational Interests for Empowering Vocational Choices for Individuals with Intellectual Disabilities

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This study focuses on the development, validation, and revision of the Nonverbal Vocational Interest Test (NVBIT), a self-assessment questionnaire designed to support self-determined career choices for individuals with intellectual disabilities. The NVBIT is a picture-based, language-reduced instrument aimed at identifying vocational interests across 11 occupational fields. The tool was adapted into a short form for the project "BfA-Gelingt" to better suit the target group, which includes individuals from sheltered workshops (WfbM) and vocational training centers (BBW).

The short form of NVBIT was developed through a participatory research approach, incorporating feedback from the target group to ensure the selected pictures were easily understandable. The tool was tested with 444 participants, showing good to excellent internal consistency and construct validity. Participants rated their interest in various activities using a three-point smiley-scale. The study also explored different interest profiles to provide tailored advice for career counseling. Through the supportive materials for counseling with the NVBIT, approaches for advising individuals with indifferent or low vocational interests can be particularly derived.

Feedback from participating institutions highlighted the NVBIT's effectiveness in identifying vocational interests and supporting self-determined career choices. The tool is particularly useful for individuals who have not yet articulated specific career interests or lack previous vocational experience. The NVBIT facilitates a deeper understanding of vocational interests, promoting sustainable employment on the primary labor market. The study concludes that the NVBIT is a valuable resource for vocational inclusion, offering a practical and economical approach to career counseling for people with disabilities.

Session 5 / 20

Diverse Learners need Diverse Learning Arrangements: The DigiFall-Online-Self As-sessment for Fostering Students'Communication and Counseling Skills in a Prob-lem-based Learning Environment

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In the project DigiFall –funded by the Ministry of Culture and Science of the State of North Rhine-Westphalia –an online self-assessment is currently being developed to help students in applying and deepening their communication and counselling-related skills. Communication and counseling skills are particularly important in social and health-related professions (e.g., Herter-Ehlers, 2021). However, teaching these skills in higher education is complex for several reasons: teachers are confronted with diverse students with very different prior experiences and reflective skills. In addition, teaching these skills ideally requires a strong practical focus, which is difficult to achieve due to the different practical experiences of teachers and the lack of time available to prepare real case scenarios (e.g., Hempel et al., 2021).

Problem-based learning (PBL) is a promising method for meeting the above-mentioned and other challenges in the teaching of communication and counseling skills. At the core of PBL are complex, open-ended problems or case scenarios that challenge learners to gather, analyze, understand, and ultimately develop solutions. The literature on PBL highlights various of its benefits such as its capacity to foster critical, reflective, and creative thinking (Black-burn, 2015), or the centrality of students (Abercrombie, Parkes, and McCarty, 2015). Until now no research has been carried out to investigate how one of the most crucial elements of PBL, the underlying problem or case that is investigated, can be developed and how it can be tailored to the needs of diverse students and teachers. Two central challenges guide the de-velopmental process of the cases for PBL in the DigiFall-Online-Self-Assessment: As the cases should be used in social, educational and health-related contexts in particular, we see an (1) increasing (multi-) professionalization of social and educational occupational fields, and an (2) increasing complexity of the professional reality.

Since the developmental process is usually a black box, we would like to exemplify how to derive evidence-based digital cases and digital PBL environments. Additionally, we are going to show the importance of a comprehensive needs assessment with teachers, students and practitioners. Furthermore, we would like to discuss how we meet the above-mentioned chal-lenges in social, educational and health-related contexts by carrying out a needs assessments, and communicative validations, and critically discuss our methodological approaches. In this way, we can contribute to evidence-based practice in the context of PBL.

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Postersession / 21

Self-determined decision-making in the context of the budget for work (BfA): An inclusive approach to counselling and support for people with special educational needs

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Background and aim: The Budget for Work (in German: Budget für Arbeit (BfA)) is a regular benefit for participation in working life that has been introduced in Germany since 2018 and aims to increase the transition of people with disabilities to the general labour market. Despite the benefits, such as a wage subsidy of up to 75% for employers and funding for guidance and support in the workplace, the number of cases is still low. Despite these benefits, the number of cases is still low.

Method: The content of the counselling concept is based on a qualitative interview study with N = 108 people, including experts, employers, people with disabilities and parents, to identify inhibiting and promoting factors. To identify professional values and interests, n = 14 people with intellectual disabilities were interviewed.

Results: The analysis of the interviews showed several inhibiting and promoting factors for the utilisation of BfA, which concern the process steps (exploration phase, empowerment). In particular, it became apparent that the values and individual needs of people with disabilities play a key role in counselling. Topics such as self-determination, individual life goals and the importance of appreciation should be focussed on in future counselling sessions in order to meet the specific needs of the target group.

Conclusion: The study shows that a multi-perspective approach to counselling is essential in order to promote the using of BfA. People with (intellectual) disabilities should be seen as experts in their own vocational interests and goals. The research results provide valuable information for the development of effective psychoeducational interventions and contribute to the participation and empowerment of people with disabilities.

Session 2 / 23

The effectiveness of sound gestures in early literacy instruction for students with intellectual disabilities: A single case study

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Abstract: Sound gestures are hand movements that represent individual phonemes and are primarily oriented towards sound production, such as mouth position, tongue movement or place of articulation. They are used in early literacy instruction, particularly to support the development of phonemic awareness and grapheme-phoneme correspondence in students with hearing impairments or those at risk for reading difficulties (Kart, 2022; Tucci et al., 2014). Although sound gestures are also recommended and widely used in early literacy instruction for German-speaking students with intellectual disabilities–based largely on positive teacher experiences (Tebbe, 2023)–empirical research on their

effectiveness for this group of students remains limited. To address this gap, an adapted alternating treatments design was employed to investigate whether direct instruction with sound gestures is more effective than direct instruction without them among eight students with intellectual disabilities. The dependent variables were phonemic awareness and grapheme-phoneme correspondence. Multilevel modeling was used to estimate the extent to which the two interventions differ in their effectiveness. The results indicate that both interventions were effective, with the sound gesture condition producing slightly greater gains for most participants on each dependent variable.

Keywords: intellectual disability, sound gesture, phonics, adapted alternating treatments design

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Postersession / 24

Evaluation of a Digital Intervention Tool to Enhance Gender Assignment in Multilingual Primary School Students: A Pilot Study

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The use of digital tools for the assessment and intervention of language (among other cognitive abilities) is promising to offer students individualised opportunities of learning in inclusive school settings. In this pilot study, we used a digital app (Klassert & Tan, 2022) to assess short- and medium-term improvements in gender assignment to articles (der, die, das in German) in multilingual primary school students, including some with special educational needs. Age of Onset (AoO) in German was evaluated as a predictor of learning gains, too. A pre-, post-, follow-up design was used to train gender assignment in 12 participants (age: M = 9;9 y.o., R = 7;2-12;9 y.o.). The experimental group (EG, N=9) received app-based training 3-to-4 times/week for 10 minutes over five weeks, while the control group (CG, N=3) received no training.

A statistically significant learning gain was attested at post-test in the EG only (d = 1.194, p = .006), which remained stable (d = .120, p = .204) at follow-up (5-7 weeks after training). An item analysis revealed a large effect for trained items (d = 2.042, p < .001) and a small effect for untrained items (d = .341, p = .062). AoO correlated with training gains in trained items (r = .731, p = .025).

Our preliminary results show potential for supporting sustainable learning gains in gender assignment, especially for students with late exposure to the language of schooling, thus making the use of app-based language support suitable for inclusive school settings. Training of more participants with special educational needs is currently ongoing.

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Postersession / 25

Empowering Vocational Inclusion: Smartphone-Based Daily Diaries and Coaching for People with Disabilities

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Background and Aims: Individuals with disabilities often face significant challenges during the transition from sheltered institutions into the open labor market, including reduced social support. This study investigates the use of smartphone-based daily diaries and coaching to support the vocational inclusion of people with disabilities during this transition.

Methods: N = 10 participants, aged 18 to 43, completed daily questionnaires on smartphones over an average period of 3.4 weeks. The data collected included mood, supervisor support, and ease of work, which were analyzed using multilevel models to identify patterns and relationships.
The results were also used in a monitoring and coaching process to identify acute intervention needs. Coaching sessions were conducted on an event-related basis: 1) the diary entries indicate discomfort or problems, 2) the client did not reply for three consecutive days, 3) participants felt the need for support.

Results: The evaluation indicates that both supervisor support and ease of work are positively associated with improved mood. Additionally, U-shaped adaptation curves for mood, supervisor support, and ease of work were observed, indicating initial declines followed by recovery over time. Qualitative feedback from participants and coaches highlighted the high feasibility and benefits of the approach, with participants expressing satisfaction and continued use of the app post-study. Coaches noted the tool's potential for empowerment, resource activation, and self-determination.

Conclusion: The study concludes that smartphone-based monitoring and coaching can provide effective, low-threshold support, enhancing self-reflection and social inclusion for people with disabilities in vocational settings. This innovative approach offers a promising avenue for fostering sustainable vocational inclusion through digitalization, addressing the need for ongoing support during critical transition periods.

Session 3 / 26

Comparing the preference of diagnostic information from variations of dynamic testing, criterion- and norm-referenced testing for individualised education planning

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Diagnostics are crucial in individualised education planning. However, transferring diagnostic information to educational practice seems to be challenging (Bosma & Resing, 2008; Pameijer, 2006). In educational contexts various diagnostic approaches are used. Here, traditional test-approaches are repeatedly criticised for failing to provide sufficient information for individualised education planning (Pameijer, 2006). Dynamic testing is discussed as an alternative (Börnert & Wilbert, 2016), but

it's still rarely used in practice. Possible reasons might include teachers'negative opinions regarding dynamic testing or difficulties with interpreting its results. Research indicates that teachers find information from dynamic tests as useful as information from traditional diagnostic tests (e.g., diagnosis of a child) whereas norm-referenced test results (e.g., comparison to peers) are being seen as less helpful for individualised education planning (Bosma et al., 2012; Bosma & Resing, 2010). At the same time, dynamic testing seems to be less familiar to teachers than other diagnostic approaches (Freeman & Miller, 2001). However, previous research had methodological limitations such as only using vignettes of dynamic testing without comparison to other approaches to examine the usefulness or solely relying on descriptive statistics. Therefore, this study investigates preservice teachers' preference for different diagnostic approaches with comparing vignettes containing different test results (norm-referenced, criterion-referenced and variations of dynamic testing) in an online study. Additionally, possible moderating variables such as attitude towards diagnostics were analysed. During the presentation, initial results of the study will be presented.

Keywords: Dynamic Testing, individualised education planning, diagnostics

Session 2 / 27

Designing a Routine Monitoring System: Identifying Critical Situations and Discontinuities in Vocational Training Programs

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Background and Aims: Discontinuities and dropouts in vocational rehabilitation challenge participants, service providers, and cost bearers. People with mental illness need intensive support in order to cope with difficult events and determine their needs, which becomes more relevant due to increasing numbers. This project developed a routine monitoring system (ROM) to identify critical situations and discontinuities for counseling and coaching in vocational training centers (VTC).

Methods: The ROM uses a 23-item questionnaire covering five key areas: competence experience, health status, private situation, training program situation, and overall assessment. It is conducted every six weeks in the participating VTC. Data from up to 12 time points and 787 administrations are available. The sample includes 181 participants in two-year vocational training programs. An evaluation was distributed to the first cohort (N=34) to assess the items clarity, relevance, and appropriateness.

Results: The ROM shows good to excellent internal consistency (Cronbach's α = .82 −.89) and moderate to high retest reliability (r = .46 −.79). Participants' perceptions of competence experience, health, and private situation change between time points, while overall situation and training program stability remain. The evaluation questionnaire indicates high acceptance of the ROM, with items perceived as clear, relevant, and appropriate. Minor adjustments to improve clarity are required and changes for further implementation are planned.

Conclusion: The ROM is a reliable tool positively received by participants, complementing existing instruments. The monitoring will be further developed, aiming to identify various progress types and scenarios to derive recommendations for counseling and coaching in VTC.

Session 3 / 28

A Systematic Review on the Use of Dynamic Testing to Inform Educational Intervention

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Dynamic Testing (DT) refers to a type of test that incorporates a learning intervention in the testing process, for example by using feedback, prompts, or hints (Resing et al., 2020). Using this process, this approach has the potential to generate information about students'instructional needs and provide information about learners'potential for learning. Thus, at least in theory, DT bridges the assessment-to-instruction gap, by including instruction in the assessment process (Veerbeek & Vogelaar, 2025).

This systematic review aims to synthesize empirical studies on the application of DT in primary and secondary education, clarifying how DT is integrated into educational practice. In the review, several topics are addressed. First, the types of data that can arise from DT, the constructs they are supposed to represent, and evidence of their validity are described. Second, the use of DT in educational settings to inform instruction was a specific point of focus, along with the barriers and facilitators for teachers'use of DT data to inform instruction. Last, evidence of DT data contributing to improved student performance was sought out and described.

Articles published between 2011 and 2024 were identified through a structured search across databases. After the initial and secondary screening, 58 studies were identified for in-depth coding. Preliminary impressions reveal substantial variation in how DT is implemented across studies. Procedures range from structured pretest–training–posttest designs to more flexible, interaction-based models delivered through either computerized or in-person formats. Differences are also evident in what DT is intended to measure.

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Session 1 / 29

Learning Potential in Drawing a Complex Figure: Associations with Executive Functions and Autistic Traits

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Dynamic testing is an assessment approach that evaluates a child's learning potential by incorporating instructional prompts directly into the testing process. This study evaluates a dynamic version of the Rey–Osterrieth Complex Figure Test (ROCF). The aim of the study was to evaluate the effects of graduated prompts training on ROCF performance and to examine the relationships between dynamic ROCF measures, planning, working memory and autistic traits.

Participants of the study were 145 children (M = 8.67 years, SD = 0.99). The study consisted of a randomized blocking experimental-control group design. Between pre- and posttest, the experimental group received a graduated prompts training, whereas the control group worked independently. During the pre- and posttest of the ROCF, children were required to copy the figure while viewing

it and draw it from memory. Outcome measures were accuracy in drawing the figure and segmentation the figure during drawing. Additionally, the Tower of Hanoi (planning), Picture Span (working memory), and the Autism Spectrum Questionnaire were administered once.

Results showed a significant interaction effect for accuracy in drawing from memory, and for segmentation on both copy and memory drawing, but not for accuracy in copying. This showed that training led to more improvement from pretest to posttest than control tasks on all measures except accuracy in copying. The patterns of correlations showed an inconsistent picture. Working memory showed weak to moderate correlations with accuracy on copy and memory drawing. Planning and autistic traits portrayed inconsistent patterns of relations with ROCF accuracy and segmentation.

Session 2 / 31

Pedagogical diagnostics of teachers as part of the transition from primary to secondary school

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In Germany, the transition to secondary school is of particular importance for children with special educational needs (SEN). It is not only the decision for a secondary school type but also implies the choice between an inclusive or a special school. However, the choice of a special instead of an inclusive school is associated with reduced career opportunities (Klemm, 2010).
Teachers play a crucial role in this transition as they advise parents. Therefore, they should base their recommendations on high-quality diagnostics. Studies on the quality of diagnostics for students with SEN currently focus on the procedures used to determine SEN (e.g. Gasterstädt et al., 2020). For example, the "Prüfauftrag zur Feststellungsdiagnostik" in NRW revealed that different and varying numbers of diagnostic methods were used (Timmermann, 2024). Similar findings can be expected at the transition to secondary school.
The presentation examines the diagnostic methods used in the context of transition. The data basis consists of 31 guided interviews from the DFG project "SeGeL". Using a content analysis (Kuckartz & Rädiker, 2024) the presentation aims to provide answers to the question what kind of diagnostic methods seem to be relevant from a teacher's perspective when it comes to transition at the end of an inclusive schooling in primary school. The data was analyzed both across cases and by comparing cases. According to initial analyses, informal diagnostics play an overriding role in the recommendation. Across all cases, this primarily includes non-standardized observations but the diversity of methods varies between the cases.

Key words: inclusion –school transition –pedagogical diagnostics

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Session 5 / 33

The Relation Between Grammatical Competence and Mathematical Learning in Children With Diverse Learning Conditions: Insights From a Meta-analysis

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Mathematical and grammatical competencies are crucial key skills for children's learning processes at pre-school and primary school age. To date, however, it remains unclear how specific mathematical and grammatical skills are related from preschool to primary school age and how similar difficulties in the acquisition of mathematical and grammatical skills exist in children with diverse learning conditions. Based on a systematic review of a total of 95 studies, 67 studies on children with typical development (TD), 7 studies on children with mathematical learning difficulties (MD), and 21 studies on children with developmental language disorders (DLD) were identified and included in an on-going meta-analysis with a total of about 1,318 individual effect sizes (TD: 1,003; MD: 26; DLD: 289). The estimated effects are analyzed using multilevel random-effects models. The effect sizes (and variances) will be further investigated regarding the influence of potential moderators from sample-specific variables (e.g., IQ, working memory skills, target language, socioeconomic status) as well as task-specific variables (e.g., study design, type/specificity of grammatical or mathematical skill). The findings of the meta-analysis promise a detailed clarification of the relationship between grammatical and mathematical abilities of children with different learning conditions on a valid statistical basis and enable subsequent evidence-based research and implications to foster children's mathematical learning.

Postersession / 34

Uncovering Hidden Strengths in Adolescents with High ACEs: A Piloting Test of the Specialization Hypothesis

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Adverse childhood experiences (ACEs) are often linked to deficits in cognitive, psychosocial, and emotional development in children and adolescents (Webster, 2022). Students in special education with a focus on emotional and social development (EBD) are particularly exposed to a high number of ACEs (Asselman et al., 2025). However, recent concepts - such as the specialization hypothesis from the Hidden Talents framework (Ellis et al., 2017) - highlight that these children may develop specific strengths as adaptive responses to stress-filled environments. Such hidden strengths, including advanced emotional regulation, could be fostered in schools to support affected students in learning and development (Ellis et al., 2022).
This study investigates
a) how ACEs relate to psychosocial development and emotional self-regulation, and
b) whether the specialization hypothesis can be confirmed, suggesting that higher ACE exposure is associated with better emotional regulation.
We conducted an online survey with N = 301 adolescents aged 12-19 years. ACEs were measured using the Child and Adolescent Trauma Screen (CATS; Sachser et al., 2022), psychosocial outcomes with the Strengths and Difficulties Questionnaire (Goodman, 1997), and emotional regulation with the Affective Style Questionnaire (Graser et al., 2019).
Preliminary findings will be presented and discussed in light of their relevance for special education and inclusive learning environments (EBD), emphasizing the potential to identify and nurture resilience-based strengths in students with high levels of adversity.

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Challenging the Norm: Teachers'Perceptions of Digital Communication Tools and Their Impact on Inclusion and Stigma in Education

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Innovative technologies are increasingly used to enhance inclusive education by supporting individualized educational planning for students with all type of disabilities. These tools aim to strengthen participation, improve educational outcomes, and promote equity through evidence-based practices. However, their success depends not only on technological usability but also on how they are received and interpreted by educators.

This presentation explores teachers'perceptions of a digital communication tool designed to assist in individualized educational planning within inclusive settings. The study is based on 53 guided interviews with special education and mainstream teachers across different school types. The data were analyzed using qualitative content analysis combined with typifying procedures to identify patterns of perception and potential resistance.

The research addresses two key challenges: first, the communication of evidence-based information in a way that is both accessible and manageable for practitioners; second, the risk of stigmatization when sensitive information about students'needs is shared through digital tools. The study aims to better understand how teachers can be supported to navigate these tensions, and what conditions are necessary that teachers perceive technological innovation as meaningful rather than disruptive.

Postersession / 36

How Does Disability Identity Affect University Students'Self-Efficacy?

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The concept of disability identity refers to feelings of solidarity and connection to the disability community of persons with a disability. Disability identity is directly and indirectly associated with a positive individual development, such as managing life challenges, higher levels of educational attainment, labor market success, and well-being. Based on the core idea from Tajfel and Turner's (1986) social identity theory and Bandura's (1986) social cognitive theory, a strong disability identity development can promote the sense of belonging in a given social context, leading to higher levels of self-beliefs. These processes are of special interest in the university context as university provides an important social and learning environment for students with disability to prepare for integration

into society.

So far, no study has used a well-validated measure of disability identity to examine the relation between disability identity, domain-specific self-beliefs, and the sense of belonging among university students with disability. Thus, the present study aims to use a new, well-validated measure—Disability Identity Development Scale (DIDS)—to examine how disability identity is associated with university-related self-efficacy and the sense of belonging to university among university students. In this study, 211 university students (M = 27.5 years; SD = 10.7) with various disabilities were surveyed regarding their contribution to the disability community in the DIDS, their university-related self-efficacy in academic, social, and roommate domains, and the sense of belonging to university. The results showed that contribution to the disability community is positively related to university-related self-efficacy in all domains and the sense of belonging to university. The sense of belonging to university mediated the relation between contribution to the disability community and self-efficacy in all domains. Findings will be discussed regarding their implications for diversity- and stigma-sensitive support and counseling of students with disabilities at universities.

A Comprehensive Framework of Learning Disorders. An Adaption from the Network Theory of Psychopathology

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Current tools for diagnosing learning disorders focus on intellectual abilities while largely dismissing many socio-psychological dynamics. Moreover, other influencing factors that contribute to the development and maintenance of persisting and severe learning problems remain underexplored. While multiple studies are addressing this misconception, crucial aspects are frequently overlooked (Fischbach et al., 2013). At the same time, many explanatory frameworks remain highly specific and offer limited applicability to other cases. Hence, a comprehensive framework of learning disorder is yet to be found. The current investigation therefore proposes a new approach to the conceptualization of learning disorders from a psycho-pedagogical point of view, adapted from the network theory of psychopathology (Boorsboom & Cramer, 2013). To develop such a framework, literature was scanned and criteria were established to identify the core symptoms / factors (here nodes) of a leaning disorder, based on how often the same concepts were mentioned. Since external conditions can significantly differ across contexts, they are unsuitable as a foundation for broad conceptual generalizations. Therefore, these processes will be predominantly reframed in terms of their impact on the individuals' internal effects. The concepts were tried to be as universal as possible, to allow for a general applicability across socio-economic status, culture, school system, or other external influences on the child. Clusters of concepts include cognitive abilities, motivational- and emotional processes, self-efficacy as well as fundamental needs. This investigation is part of a larger project that aims to develop a network model focusing on the interaction between learning disorders and behavioural disorders.

Keywords: Learning Disorders, Network Model, Comprehensive Framework

Literature

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Enhancing teaches' proficiency in the visual analysis of single-case graphs

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Given the increasing demand for evidence-based diagnostics in special education, strengthening teachers' visual analysis skills is crucial for accurately assessing learning progress and informing instruction. Visual analysis of learning-progress graphs is a widely used method for evaluating single-case data, yet it is prone to systematic judgment errors. Building on prior findings (Bosch et al., under review), this study investigates the effectiveness of a video-based training designed to improve the accuracy of teachers' visual analysis. We focused on graph types that previously led to high error rates—specifically, graphs showing a data trend before the intervention. In Bosch et al., such graphs were misclassified as showing an effect in 84% of cases, compared to a 98% correct classification rate for graphs with both trend and intervention effect. To examine whether this pattern results from a heuristic based on comparing only the first and last data points, the current study aligned start and end values across both trend conditions. Additionally, A and B phases were matched in length to ensure comparable opportunities for trend detection. A total of $N = 129$ pre-service teachers participated in a randomized controlled study. Participants analyzed 40 graphs before and after receiving either the training or a control video. Results show that trend information impaired judgment accuracy, but training led to a 16% reduction in misclassifications in this critical condition. An exploratory comparison revealed lower ratings for graphs without trends but with an intervention effect, suggesting that specific design features influenced interpretation.