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Book of Abstracts*

Orly Alshech + Hefziba Lifshits + Sigal Eden (liorsow@gmail.com), Bar Ilan University

Promoting Academic Performance among Students with ID with UDL-Based Technological Intervention

The incorporation of technological tools in the advancement of learning goals, among intellectually disabled populations, has become more prevalent in recent years. In order for a curriculum to be implemented and successful, it is essential that the learning environment needs to be adapted to every learner's needs and abilities, which is known as Universal Design for Learning – UDL (Hall et al., 2012). Technological adaptations allow teaching and learning opportunities for intellectually disabled people. The proposed study aims to explore whether technological intervention, by means of an accessible digital book, in a learning environment based on the Universal Design for Learning (UDL) innovative learning model, will significantly improve academic knowledge among adolescents and adults with intellectual disabilities, compared to the intervention with a printed book. The study included 57 intellectually disabled participants aged 15-60, with IQs ranging from 55-70. They were divided into two age groups: adolescents (CA = 15-21) and adults (CA = 24-60).

Similar to our hypothesis, an increase in achievements was found among both groups of participants after the intervention. In addition, a greater improvement was found in both groups of participants after the intervention with the e-book. The research findings may contribute to the development of an academic learning model using technology, specifically digital books. In addition, the research findings may assist researchers and educators in the field in building educational programs for a population with Intellectual disabilities.

Keywords: UDL, Intellectual disability, digital book, academic abilities

* The abstracts are listed in alphabetical order – according to the first author's surname.



Sivan Avni* + Adina Shamir# (testa.sivan@gmail.com), *Achava Academic College, #Bar Ilan University

Peer Mediation with Digital Books: Promoting Mediation Style & Self-Mediation in Children with SLD

Peer-assisted learning (PAL) in digital settings is a common learning context with the potential to empower peers in the collaborative learning process. The main objective of the present study was to examine the contribution of PAL using digital books, both with an intervention program and spontaneously, in promoting the mediation style and literacy of both tutors and tutees. The study included 40 third-grade participants ($M=9.03$, $SD=0.30$) and 40 first-grade participants ($M=6.99$, $SD=0.43$). The children were sampled based on inclusion criteria (DSM-5). The third-grade participants were assigned randomly to two research groups: (1) PAL with a peer mediation program and (2) Spontaneous PAL. For the joint PAL activity with a digital book, an intervention program with a digital book was developed based on the PMYC model. The study's findings indicated differences between the groups in mediation style and an improvement in the literacy skills of both tutors and tutees.

Keywords: peer mediation, digital books, pupils with specific learning disorders, literacy

Markéta Buřilová + Martin Musálek (marketaburilova@seznam.cz), Faculty of Physical Education and Sport at Charles University in Prague

The effect of a two-year intervention program on changes in selected cognitive functions and adherence to physical activity in younger school-age children

Physical activity (PA) is crucial for the development of motor and cognitive functions. Research shows that today's children are engaging in less PA. Increasing PA through school-based interventions has shown positive effects on some cognitive functions, but most studies focus on short-term effects. The long-term effects of physical interventions on cognitive development and changes in motivation for PA in younger school-age children are unclear. Motivation for PA is often based on self-determination theory, which overlooks the emotional-experiential component. In contrast, Affective Reflective Theory emphasizes a stable emotional experience called Core Affect. Tandem teaching, which has not yet been validated to increase PA motivation and cognitive development, is also underutilized in experiential movement programs. This project aims to determine the effect of a two-year movement intervention program of tandem instruction in physical education classes on changes in selected cognitive functions and motivation for PA in younger school-aged children.

Keywords: kids, cognition, movement program, motivation



Noa Bustan (bustanoa@smile.net.il), Hakibuzim College

Resilience in Adults with Intellectual Disabilities During Crisis

This poster presents a clinical application of principles derived from a doctoral study, peer-reviewed research, and over thirty years of clinical experience. These insights challenge the prevailing notion reflected in the APA, DSM-5 (2013), and AAIDD 2021 (Schalock et al., 2021) - that individuals with intellectual and developmental disabilities (IDD) have impaired learning capabilities and limited capacity to learn from experience. The intervention took place over a year with a group of adults with IDD who had been evacuated from community-based supported housing due to the security situation in Israel. The program integrated three domains: (1) Emotional processing and resilience-building through individual and group discussions, (2) Structured learning sessions on topics such as weekly, current events, cognitive games, general knowledge, Torah portions, and verbal enrichment, and (3) Diverse and creative leisure and experiential activities, such as art, painting, and baking, related to current events, holidays, and calendar events. Clinical experience supports existing research indicating the capacity of individuals with intellectual disabilities for cognitive development and experiential learning. It emphasizes that even during periods of crisis and prolonged distress, it is possible to foster and maintain emotional and cognitive abilities in this population through tailored mediation and guided training.

Keywords: intellectual disabilities, experiential learning, cognitive development, crisis intervention, emotional resilience, mediated learning, adult education, cognitive stimulation, leisure activities

Mariateresa Cairo + Caterina Martinazzoli + Rebecca Belforti (maria.cairo@unicatt.it), Università Cattolica del Sacro Cuore di Milano

Research Beyond the Lines: experiences and needs of gifted students

The research project "Beyond the Lines: High Cognitive Potential Students and Giftedness at School" arises from the need to embrace the thoughts of gifted students and their parents. The project's focus was particularly directed towards:

- School experiences;
- Family experiences;
- Hetero-evaluation and self-evaluation of the school context;
- Barriers and solutions aimed at the school inclusion of students with high cognitive potential and giftedness;
- The most effective methodologies for school and relational well-being at school;



- Inclusive policies, cultures, and practices based on the principles of educational mediation and differentiated instruction.

The research sample involved a total of 18 parents of 20 children (ages 6-11) and 19 parents of 17 teenagers (ages 12-20) belonging to the Step-Net ODV Association in Milan. Through individual semi-structured interviews, interesting recurring themes were highlighted, inviting reflections and new research ideas. In particular, the interests, hobbies, and personal passions of the students were revealed, as well as their pronounced sensitivity alongside their characteristics of excellence. The children and teenagers expressed their ideas and experiences about school and their future.

Parents participated in the interviews with enthusiasm and generosity, sharing experiences, memories, future perspectives, ideas, and proposals, and expressing their emotions (pride, happiness, optimism, and on the other hand, fears, worries, and pessimism). Themes emerged relating to the positives as well as difficulties their children encounter at school. Moreover, reflections on school performance, relationships, bullying, and the competence (or lack thereof) of teachers and the school in managing giftedness were brought to light. Finally, parents shared their needs and suggested educational and didactic insights useful for guiding school policies.

The voices of the students and their families allowed for a deeper understanding of some aspects of giftedness, confirming scientific literature and exploring the subtle world of experiences and needs of a part of the Italian school population living “beyond the lines”.

Keywords: gifted students, education, school, family

Irit Chen + Ayala Klein-Ezra + Heftziba Lifshitz + Shlomit Shnitzer – Meirovich (irit-hen@walla.com), Bar Ilan University

The Contribution of Memory, Crystallized and Fluid Intelligence on Mathematical Ability among Adolescents and Adults with Intellectual Disability: Correlations and Developmental Trajectories

The study examined the developmental trajectories (accelerated, stable, or continuous) of mathematical ability (basic concepts, operations, and application) in 56 adolescents (aged 16-21) and adults (aged 23-40) with non-specific intellectual disability (NSID). As well as the contribution of crystallized intelligence (Gc), fluid intelligence (Gf), working memory (WM), and long-term memory on mathematical ability. Vocabulary, Similarities, Block Design, Matrix, Digit span, Spatial span, Rey AVLT, and Key-Math tests were administered. Friedman's test revealed higher scores in basic concepts and applications compared to operations. In basic concepts, the highest score was in geometry, and the lowest in algebra. Addition and subtraction were higher than multiplication and division. Mann-Whitney analyses indicated that adults exhibited higher scores than adolescents on measurement, addition and subtraction, mental computation, and estimation, which



supports the Compensation Age Theory. Gc, Gf, and WM significantly predicted performance across most mathematical domains, except for Operations, where Gc showed no significant influence.

Keywords: mathematical ability, developmental trajectories, non-specific intellectual disability, adolescents and adults, crystallized intelligence, fluid intelligence, working memory

Miki Cohen* + **Shani Levy-Shimon**# (mikico24@gmail.com), *The Hebrew University of Jerusalem & David Yellin College of Education, #Bar-Ilan University & David Yellin College of Education

Goal Setting's Effect on Student Reading Comprehension

Reading comprehension is critical for academic and professional success, with active engagement and intentional learning strategies aiding comprehension. This study examines whether precise goals improve reading comprehension and text reconstruction. Forty-eight fourth-grade students were divided into two groups: one received unspecified post-reading task instructions, while the other was told they would reconstruct the text in writing. Results indicate precise goals aided reconstruction achievement, with the defined goal group recalling more correct information with greater accuracy, demonstrating improved linguistic form, and including fewer unrelated details, though reconstruction length remained similar between groups. These findings suggest that tailored reading goals can enhance students' text comprehension and reconstruction capabilities by focusing attention and providing intentional strategies. With specific targets, students actively monitor their understanding instead of passive reading. Goal setting offers an instructional technique to build skills, especially for below-grade learners, and merits consideration by teachers aiming to bolster active reading.

Keywords: reading comprehension, goal setting, comprehension monitoring

Oren Cohen Zada (orencohenzada@gmail.com), University of Haifa

"I Offer both my Hands to you, to be a Guiding Light for you": Integrating Teachers with Physical Disabilities from the Perspective of School Principals in Israel

This study examines the challenges encountered by school principals while integrating teachers with disabilities despite the predictable difficulties this decision posed for the school. It aims to enhance the understanding of how school principals perceive the hiring of teachers with physical disabilities. This qualitative study addresses the challenges encountered while absorbing teachers with physical disabilities in their schools and the coping strategies and organizational resources they used to support these teachers. In-depth interviews conducted with forty Israeli school principals revealed their experiences, feelings, and perspectives regarding the hiring of teachers with disabilities. Among school principals' challenges was a wide range of objections by



teachers, parents, and local authority representatives against employing teachers with disabilities. The findings indicate that principal-led support primarily focused on social integration by strengthening the teachers' standing among their colleagues and within the parent community, as well as facilitating collegial interactions with other teachers. The principals took on the direct responsibility for acclimatizing these teachers and involved the school's intermediate leadership and educational counselors in the process. These school principals became key support figures for the teachers.

Keywords: inclusion, integration, intermediate leadership, organizational support, school principals, teachers with disabilities

Shahar Dotan + Tami Katzir (dotan.shahar@gmail.com), University of Haifa

The Effect of Modality on Reading Comprehension of Struggling and Typical Readers in the Second and Third Grade

This study explores "screen inferiority"—a well-documented phenomenon in mature readers where reading comprehension is often better on paper than on screens—among young readers in the early stages of literacy. Examining 342 second-graders and 284 third-graders, the research assessed comprehension and modality preferences across paper and screen settings. Findings revealed no significant comprehension differences between modalities, though struggling second-grade readers performed slightly better on paper. Interestingly, most children preferred reading on screens. These results suggest that, unlike older populations, young readers may not exhibit screen inferiority, but the impact of digital task characteristics warrants further investigation to understand when screens enhance or hinder comprehension.

Keywords: digital reading, reading modality, reading comprehension, modality preference

Sigal Eden + Nurit Cohen (sigal.eden@biu.ac.il), Bar Ilan University

Spatial Perception in Children with Autism: Intervention with Robots

This study examines spatial perception, crucial for development and daily functioning, focusing on enhancement through a robot-mediated intervention for children with autism spectrum disorder (ASD). Participants include 84 children aged 5–7 ($M = 5.69$, $SD = 0.38$), divided into four groups: (1) ASD—robot-mediated intervention (22), (2) ASD—traditional non-technological intervention (20), (3) ASD—no intervention (22), and (4) typically developing (TD)—control group (20). Pre-tests included social communication abilities, verbal intelligence, and spatial perception abilities. The intervention was conducted weekly for 10 sessions, followed by repeated spatial perception tests. Initially, children with ASD showed lower spatial perception than TD children. Both interventions improved performance, but the robot-mediated group showed significant gains, surpassing TD



children's results. The findings highlight the potential of using robotic technologies to enhance the abilities of children with ASD and to develop innovative educational and therapeutic programs.

Keywords: Autism, spatial perception, robots

Shua Englman (deshe0@gmail.com), Talpiot College of Education, Holon, Israel

Integration and inclusion in a separatist society: Attitudes of Haredi teachers

Since the 2010s, Haredi education has grown more aware of integrating and caring for students with learning disabilities. While the Israeli State education system bases integration on mainstreaming and inclusion, the philosophical-ideological foundation for integration in Haredi schools has not yet been studied. This two-stage sequential exploratory study was designed to examine differences in teachers' perceptions and attitudes toward the inclusion of students with disabilities in mainstream schools among teachers in two Haredi groups. First, 150 Haredi teachers (80 Litai, 70 Sephardi) answered a quantitative questionnaire. The findings revealed that the ethnic component played a role in forming attitudes toward integration and inclusion (I&I). Contrary to our assumption, Sephardi teachers were more conservative than Litai ones, opposed inclusion, and supported placement in special settings, pointing to the pedagogical and emotional difficulties inclusion places on the other students. Interviews were then conducted to gain a deeper understanding of the intergroup gaps. Second, in-depth, semi-structured interviews were conducted with 20 teachers (10 Litai, 10 Sephardi). The qualitative findings explained the gaps in the lack of professional knowledge, resources, and professional support among Sephardi teachers, leading to the conclusion that each group should be addressed on its own, relative to its unique cultural-social attributes.

This calls for inclusive programmes developed in dialogue with rabbinic authorities, alongside targeted support for Sephardic teachers and institutions committed to integration.

Keywords: perceptions, attitudes, integration and inclusion, Haredi, Litai, Sephardi

Tal Erez-Hod + Bat-Sheva Hadad + Anat Zafrani + Tami Katzir (talerez3@gmail.com), Edmond J. Safra Brain Research Centre for the Study of Learning Disabilities

The Development of Hemispheric Lateralization of Word and Face Processing: A Longitudinal Observation of Students with and without Reading and Attention Difficulties

This study investigates the development of hemispheric lateralization in word and face processing, emphasizing their relationship during critical developmental stages. The research explores whether visual field preferences for letters and faces are interconnected and how these processes evolve over time. Two groups of children were compared: those in the low face



processing (25th percentile and lower) in the left visual field (LVF) and those with high face processing (the 75th percentile and higher). Participants performed tasks requiring the identification of letters or faces displayed in different visual fields. Results showed that children with stronger LVF face processing demonstrated significantly better right visual field (RVF) letter processing, suggesting early lateralization of these abilities. No significant differences were observed in LVF letter processing between the groups. These findings highlight the intricate relationship between face and word processing and the role of hemispheric specialization. Understanding this connection can inform interventions for children with developmental impairments in these processes.

Keywords: letter processing, face processing, hemispheric lateralization, visual field preferences, developmental impairments

Elena Even-Simkin (elenaev@sce.ac.il), SCE, Sami Shamoon College of Engineering, and Kaye Academic College of Education

The Interface Between SLI and Cognitive Processing Sensitivity in Past Tense Production Among EFL Learners

Children with Specific Language Impairment (SLI) face significant challenges in applying grammatical rules compared to typically developing (TD) peers. However, the grammatical errors of TD EFL learners can also resemble the students' errors with SLI, leading to potential misdiagnosis (Paradis, 2005). Recent research on English Past Tense production in EFL learners with SLI has shown that Past Tense use can differentiate EFL learners with and without SLI (Blom & Paradis, 2013; Even-Simkin, 2017). This study presents the sensitivity rates in the production of the Past Tense constructions in the EFL individuals with SLI and the age-matched TD EFL learners for further discussion of the educational and clinical ramifications of the findings. Furthermore, this study defines the grammatical sensitivity for both "regular" and "irregular" Past Tense formation in English in EFL learners, thus providing additional essential and significant insight into the SLI in EFL teaching and its identification in EFL learners.

References

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Keywords: SLI, EFL learners, grammatical production, assessment



Esther Fairstein + Gilat Trabelsi (estifa@kaye.ac.il), Kaye Academic College

The Effects of the Teachers Without Boundaries Program on the Self-Efficacy of Young Teachers with Disabilities

The goal of the present study was to examine the effects of the Teachers Without Boundaries program on the participants' self-efficacy five years after it began operating. 51 teachers with disabilities participated in the study. The results indicate a significant effect of self-efficacy in teaching and interpersonal relationships with students. The self-efficacy of the organizational context was lower in comparison. The study's main conclusion focuses on the importance of a leading, supportive, and accessible program for the inclusion of these teachers. An eco-humanistic era requires all humans to expand their limits and respect physical or sensory diversities. This kind of program can enhance equity in the employment conditions and self-efficacy of such teachers. The study's contribution is that it constitutes a reflection for policymakers, superintendents, principals, and all school communities of the reality, the successes, and the challenges entailed in the inclusion of these teachers.

Keywords: teachers with disabilities (TWD), self-efficacy (SE), belonging, accessibility, support, inclusion

Yarden Gali (yardengali2@gmail.com), Talpiot College of Education

Bridging Education and Healing: The Impact of Hospital Schools on the Mental Well-being of Pediatric Patients

This qualitative study explores the role of hospital schools in promoting the mental well-being of sick children. Through in-depth interviews with ten hospital school principals in Israel, four key themes emerged: (A) Creating a uniform language, (B) Characteristics and features of teaching staff, (C) Unique study programs, and (D) The school as a familiar and safe place. These themes highlight the unique challenges and opportunities faced by hospital schools in supporting the academic, social, and emotional needs of students during hospitalization. Findings emphasize the importance of effective communication and cross-disciplinary collaboration between educators and healthcare professionals. The study reveals that hospital school teachers require specific skills, including flexibility, empathy, and the ability to create individualized learning experiences. Additionally, the school environment itself serves as a critical haven, providing a sense of normalcy and continuity for sick children. This research contributes to our understanding of how hospital schools can effectively support the mental health and overall well-being of hospitalized students, offering insights for policy development and best practices in this specialized educational setting.

Keywords: hospital schools, principals, ill students, mental health, school administrators



Carmit Gal* + **Shani Raveh Amsalem[#]** + **Chen Hanna Ryder*** (carmitgal21@gmail.com), *Western Galilee College, [#]Sha'anana, Academic Teacher's College, Haifa

Unlocking the Path: Exploring Parental Perception and Coping Strategies Amidst Special Education Challenges within Mainstream Educational Settings in Israel.

Within the dynamic context of inclusive education for children with special needs in Israel, parents play a crucial role in addressing these challenges. The present study focuses on the experiences of parents with children who have special needs in inclusive educational frameworks in Israel. Using an interpretive phenomenological approach, qualitative semi-structured interviews were conducted with ten parents of children with special needs who are enrolled in inclusive educational settings, either in mainstream classrooms or kindergartens. The interviews were transcribed and analyzed using theoretical thematic analysis, which yielded four main themes: persistent conflict, challenges in choosing educational settings, proactive coping strategies, and interaction with educational settings. The study highlights conflicts with other parents, difficulties in decision-making, and a lack of adequate support from the system. Findings underscore the necessity for enhanced organizational frameworks, more proficient staff, and supportive environments to effectively include children with special needs in mainstream education in Israel.

Key Words: Inclusive Education: parental challenges, special education, coping mechanisms

Roni Gez-Langerman (ronigez@gmail.com), Kaye Academic College of Education

Empathic listening as inclusiveness and regulatory abilities among educators in Israel

The study aims to examine the correlation between innate (neuroticism and openness) and environmental (self-esteem and emotional regulation strategies) personality traits and the attitudes assessment toward active listening (AL) among early childhood educators in Israel. Accordingly, this study presents a multipath analysis model exploring the correlations between all those variables. In this study, AL was evaluated using the active listening attitude scale (ALAS) questionnaire, which measures a person-centered attitude through three key factors: "listening attitude," which identifies values that support active listening; "listening skill," which represents the technical expression of active listening; and "conversation opportunity," which identifies listening situations conducive to AL. AL is perceived as an interpersonal communication skill that encourages listeners to integrate multi-sensory and cognitive processes to produce positive and supportive outcomes. To facilitate AL, listeners should be emotionally stable, well-regulated, and possess high self-esteem. Early educators have a decisive influence on children's behavior, so this study examines personality traits and the educators' perception of active listening. A survey conducted among 390 early childhood educators, both female and male, indicated that both innate and environmental emotional traits correlate with two major factors of AL: "listening attitude" and "listening skill." The path analysis model supports the perception that an effective and supportive



listener must have a stable, open, and curious emotional foundation, along with emotional regulation skills and high self-esteem.

Keywords: active listening; innate traits: neuroticism and openness to experiences; environmental traits: self-esteem, emotional regulation

Dafna Granit-Dgani (dafnahodu@gmail.com), Kaye Academic College of Education

Cognitive Development Through Dialogical Learning: A Case Study of Educational Supervisors

This paper introduces the concept of "Dialogical Andragogy" as a model for professional development in educational settings, with a focus on cognitive education, diversity, and inclusion. The study examines a three-year professional development program implemented in the Southern District of Israel's Ministry of Education from 2020-2022, involving approximately 120 supervisors and instructors from diverse backgrounds, including Jewish and Arab educators.

The model integrates three key components: inspiration, skills development, and peer learning, operating through four simultaneous dialogues: with peers, with the environment, with the organization, and with oneself. The research demonstrates how this approach promotes cognitive flexibility and inclusive practices among adult learners, particularly in educational leadership roles.

The findings reveal that this model effectively supports professional identity development while fostering diversity and inclusion in educational settings. The study highlights the importance of self-directed learning, collaborative knowledge construction, and the integration of diverse perspectives in professional development programs. This approach proved particularly valuable during the COVID-19 pandemic, as it enabled educators to adapt to rapid changes while maintaining a focus on educational equity and social mobility.

Keywords: professional development, adult learning, educational leadership, cognitive flexibility, inclusive education

Dafna Granit-Dgani (dafnahodu@gmail.com), Kaye Academic College of Education

Empowering Through Education: The Gvanim Path to Success"

The Gvanim Program at Kaye Academic College of Education is designed specifically for adults with special needs aged 18-35, offering them a groundbreaking opportunity to integrate into the education system as teaching support staff. The program aims to empower participants by providing them with professional tools and skills while addressing the growing need for educational staff in Israel's school system. Additionally, it creates meaningful social change by promoting inclusion and diversity in educational settings.



The program combines academic studies with practical training, spanning three semesters (360 hours) at the college. Students engage in various courses, including basic academic literacy, communication in education, developmental psychology, and creative expression. They also participate in a unique mentoring system where they work alongside regular college students in the learning center. The curriculum emphasizes self-management and leadership skills through dedicated workshops throughout the program. This comprehensive approach not only prepares participants for their future roles but also integrates them into the academic environment, fostering a sense of belonging and professional growth.

Keywords: special needs education, adult vocational training, educational inclusion, teaching support staff, pedagogical empowerment

Dorit Hadar Shoval (dorith@yvc.ac.il), The Max Stern Yezreel Valley College

Advancing Cognitive Accessibility: Generative AI as a Cognitive Partner for Individuals with Cognitive Disabilities

GenAI has the potential to serve as a transformative cognitive partner for individuals with cognitive disabilities, enabling greater independence and inclusion in various life domains. This framework proposes three key areas where GenAI can provide meaningful support:

1. Inner World Accessibility: GenAI can help individuals understand their thoughts, emotions, and needs by translating complex internal processes into accessible and clear language.
2. Interpersonal Communication Mediation: Acting as a bidirectional translator, GenAI bridges communication gaps by helping individuals articulate their needs and emotions while interpreting and contextualizing social cues from others.
3. Environmental Navigation: GenAI simplifies complex information about physical and digital environments, translating it into user-friendly formats.

This approach prioritizes respect for diversity and individual aspirations, offering tailored support rather than enforcing normalization. The framework acknowledges critical ethical considerations, such as autonomy, privacy, and the implications of human-machine partnerships, aiming to re-define accessibility and participation for individuals with cognitive disabilities.

Keywords: generative artificial intelligence, cognitive accessibility, interpersonal communication, environmental navigation, disability support



Shirley Har-Zvi + Oren Cohen Zada + Orly Lankry (shirhar68@gmail.com), Talpiot Academic College

"Sowing Hope" through Individual Mentoring Project at Teacher Training College to Support Students Dealing with Challenges during the "Swords of Iron" War

This study examined the impact of the individual mentoring Project "PELE" on pre-service teachers and their ability to cope with academic, social, and emotional challenges during the "Swords of Iron" war.

The study involved seven academic faculty mentors and 63 first- and second-year students from the Special Education track at "Talpiot" Academic College of Education; 15 female students were selected for interviews through purposeful sampling. The study underscores the significance of mentorship for early-stage pre-service teachers, particularly during emergencies. Mentors instilled hope in students during this challenging period and provided valuable "tips" on time management, coping with assignments, and preparing for tests. They also built meaningful interpersonal relationships with students, thus enhancing their sense of self-efficacy during this difficult time. The project facilitated social connections among students and boosted their sense of independence. Mentors serve as nurturing role models, and their guidance continues to illuminate their students' academic paths.

Keywords: teacher-training students, mentors, self-efficacy, coping

Orit Hod-Shemer + Michal Baloulou (oritshemer@gmail.com), Kaye Academic College of Education

The sand table as a tool for developing creative thinking in the first grade (case study)

This study explores a sand table, originally from a kindergarten, set up in an elementary school courtyard, attracting first-grade students. It investigates whether group play at the sand table enhances creative thinking skills in young children, a crucial 21st-century skill. Two groups of 6-7-year-olds participated in free play using various miniatures and accessories. Their interactions were filmed, and follow-up semi-structured interviews were conducted. Data analysis combined with focused criteria for assessing creative thinking and content analysis. Findings indicate that the sand table fosters an innovative learning environment that nurtures imagination and creativity. Both groups demonstrated key creative thinking criteria: investigation, involvement, and persistence. Boys aimed to build a global electrical grid, while girls created diverse scenarios like a zoo or competition space. This study highlights the importance of providing young children with spaces that promote informal learning, experimentation with materials, imaginative play, and social interactions to develop skills for a dynamic future.



Ida Igra (dridaigra@gmail.com), Special Education Department, Hemdat College

The Relationship Between Functioning and Psychological Capital of Adolescents with Cerebral Palsy

An important issue in research regarding adolescents with cerebral palsy (CP) is the relationship between their level of functioning and their psychological well-being. This research examines the relationship between motor, cognitive, socio-communicative, and activities of daily living (ADL) functioning and the extent of psychological capital among adolescents with CP. 53 mother-adolescents with CP pairs were included in the study. The Pediatric Evaluation of Disability Inventory, Raven's Standard Progressive Matrices, and the Peabody Picture Vocabulary Test were applied to assess functioning, and the Life Orientation Test-Revised, the Hope Scale, the General Self-Efficacy Scale, and the Resilience Scale were applied to assess psychological capital. The level of motor and cognitive functioning of adolescents with CP contributes to their psychological capital: the higher the functioning level of adolescents with CP, the lower their psychological capital, and vice versa, a lower functioning level correlates with a higher psychological capital.

Keywords: adolescents with cerebral palsy, motor and cognitive functioning, psychological capital

Esther Isman* + Avital Laufer# (Esther.Isman@biu.ac.il), *Bar Ilan University, #Netanya Academic College

From Exclusion to Inclusion: How Legislation, Choice, and Empowerment Impact Parental Well-Being and Reduce Stress

Empowering parents of children with special needs hinges on their ability to choose their child's educational placement. In Israel, a recent amendment to the Special Education Law promotes inclusion by allowing parents to decide on placements and allocating resources according to the "funding follows the child" principle. This study compared parental satisfaction, stress, well-being, and distress before and after the amendment. Parents completed an online survey assessing satisfaction with the educational setting, mental health, and stress levels. After the amendment, parents believed their child's school better matched individual needs, offering stronger academic, emotional, and social support. They also reported lower levels of distress. These findings suggest that inclusive legislation and parental choice help to empower parents and build stronger family-school relationships, ultimately improving parental satisfaction and mental health while reducing stress.

Keywords: inclusion, legislation, parental empowerment, well-being, stress



Ruslan Jabayev + Martin Musálek (ruslan.jabayev170288@gmail.com), Charles University in Prague

The Impact of Karate-Inspired Physical Education Lessons on Enhancing Physical Activity, Selective Attention, and Motor Competences in 8–9-Year-Old Children in Kazakhstan

Physical activity (PA) is crucial for children's health, yet many fail to meet recommended levels due to increased screen time and decreased interest. Motivation theories offer insights into improving PA participation: Self-determination theory (SDT) emphasizes intrinsic motivation, while Affective-Reflective Theory (ART) focuses on emotional responses, particularly relevant for children aged 8-9. Martial arts, especially karate, show promise in enhancing PA adherence and fostering positive behavioral outcomes.

Studies indicate that karate practice improves cognitive skills, consistency, and intrinsic motivation while boosting academic performance and physical fitness. However, research gaps exist in understanding how martial arts principles can enhance PA adherence using the ART approach in children. Most studies focus on self-determination, overlooking core affect—the emotional perception of activities as pleasant or unpleasant. Further investigation is needed into strategies that modify motor behavior and promote long-term PA adherence through emotional experiences.

Keywords: martial arts, physical education, motivation, physical activity, primary school, intervention

Klára Jahodová (klarca6jahodova@seznam.cz), Faculty of Physical Education and Sport, Charles University

The impact of tandem teaching in physical education on the development of selected motor constructs and adherence to physical activity in younger school-age children

Physical activity levels among children are declining globally, leading to decreased motor competence and cardiorespiratory fitness. Although various interventions over the past two decades have shown acute improvements in these areas, the long-term effects remain unclear. A key, yet frequently overlooked, factor for sustaining long-term benefits is focusing on enhancing individual autonomy through emotional engagement. The Affect-Reflective Theory (ART), which targets the "Core Affect" or stable emotional experience, appears promising for increasing adherence to physical activity, as well as improving motor competence and cardiorespiratory fitness. ART aligns well with the concept of tandem physical education, designed to foster positive experiences under the combined guidance of a teacher and coach. This project aims to examine the long-term impact of tandem physical education on actual and perceived motor competencies and physical activity adherence in a two-year intervention study among third to fourth-grade students.

Keywords: motivation, motor competencies, physical activity, primary school, physical education



Ganit Eshel Kedmi* + Passig David* + Adi Aharoni# (geshelk@gmail.com), *TheAcademic College in Ramat Gan, #Bar-Ilan University

Technological Interface Components That Support Accelerated Learning in the Acquisition of Foreign Language Vocabulary

There is a need to find innovative learning methods that enable accelerated learning of a foreign language. This study examined the effect of computer-assisted language learning (CALL) in acquiring a foreign language, which combines cognitive and emotional stimuli in the background.

The study explored the duration and scope of the learning process and the depth of internalization of the newly acquired language. Another objective was to assess the learning method in two learning environments, 2D and VR, to determine if the learning environment affects the learning results and leads to better vocabulary retention.

One hundred native French speakers participated in the study and had no prior knowledge of a newly acquired language.

The findings indicate that using CALL significantly accelerates the learning pace, broadens the scope of newly acquired words, and ensures retention in both learning environments. The level of improvement observed in our study is notably higher than reported in the literature.

Keywords: accelerated learning; acquisition of a foreign language; Luzanov model; CALL; VR learning environment

Shirley Har-Zvi + Dikla Hanuka Levy (shirhar68@gmail.com), Talpiot Academic College

The effect of the GAMA (gross and fine motor abilities) intervention program on readiness for handwriting

Writing is a key communication tool. Success or failure in writing will affect academic achievement. In this study, we focused on motor and perceptual skills, which are a preliminary stage for the acquisition of writing. The acquisition of writing requires mediated and systematic teaching while strengthening basic functions.

The study examined the effect of a gross and fine motor intervention program (GAMA) on the level of readiness for writing among kindergarten children with developmental delays. The study was conducted for about two and a half months, and the sample included children from two kindergartens (n=22). The experimental group (n=11) participated in the GAMA intervention program, and the control group (n=11) followed the regular curriculum.

Students were assessed before and after the intervention using the BEERY test, which measures visuomotor integration, and the BOTMP test, which assesses motor efficiency. The experimental



group improved significantly more than the control group in the overall score of the BEERY test and visual perception.

This study indicates that training in gross and fine motor skills can contribute to readiness for handwriting among preschool children with developmental delays. It is recommended to investigate the possible effects of the program among students from the general population.

Keywords: readiness, handwriting, gross and fine motor skills, kindergarten, developmental delays

Reut Hochman (reut.colearning@gmail.com), Israeli Ministry of Education

F.S.N.G- Five-Step Teaching Model for New Generation

The F.S.N.G. Model (Five Steps for the New Generation) is a holistic model designed for teaching across various disciplines. This model is based on neuro-pedagogical principles and research that address the question: What is the most effective teaching method for Generation Z and Generation Alpha in the 21st century?

The model consists of five stages, each distinguished by several parameters: teaching method, learning theory, neuro-pedagogical principle, and research basis.

1. Creating Openness for Learning: For example, by using guided imagery.
2. Motivating Learning: By establishing an emotional connection to the subject.
3. Practicing Collaborative Learning: For instance, through "havruta" (paired study).
4. Assessing Knowledge Levels and Responding to Teaching: Using gamification tools such as Kahoot.
5. Fostering Creativity: Developing creativity as a fundamental skill for the 21st century.

This model has been successfully implemented with hundreds of high school students and in teacher training programmes since 2016.

Keywords: neuro-cognitive, collaboration, gamification, creativity

Judy Kohan* + **Yechiel Tanami[#]** + **Pozin Marina[#]** + **Omrit Adiri[#]** (judy.kohan@mail.huji.ac.il), *The Hebrew University of Jerusalem and Hemdat College of Education, [#]Hemdat College of Education

Think to Count: The Role of Executive Functions in Math Achievement among Young Students

In recent decades, research has emphasized the critical role of cognitive abilities, particularly executive functions (EFs), in learning and academic performance. Mathematics, a foundational subject, heavily relies on EFs such as behavioural regulation and metacognition.



This study examined the relationship between EFs and math achievement in first and second-grade students. Findings revealed a significant positive correlation between EFs and math performance, aligning with previous research on the role of working memory in academic success (Alloway & Alloway, 2010) and math achievement (Cheung & Chan, 2022; Živković et al., 2022).

The study's unique contribution lies in highlighting the predictive value of EFs for math success at an early stage. This understanding can inform the development of targeted teaching strategies to strengthen students' EFs, providing a clearer path for promoting both cognitive skills and academic achievement.

Keywords: executive functions (EFs), math achievement, behavioural regulation, metacognition, educational interventions

Theresa Folashade Kolade* + Elizabeth Foluke# (molafola7@gmail.com), *Nasarawa State University Keffi, Nasarawa State Nigeria, #Amadu Bello University, Zaria, Kaduna State, Nigeria

Effect of Fear Appeal on Classroom Incivility among Junior Secondary School Students in Nasarawa State, Nigeria

This paper examined the effect of fear appeal on classroom incivility among public junior secondary school students in Nasarawa State. Classroom incivility is observed to be common and frequently occurs during the teaching and learning process. Classroom uncivil act is always a threat to a conducive learning atmosphere for students and teachers. Thus, classroom incivility can be seen as an escalating circle of actions and reactions that can be distressing to the teaching and learning process. Fear Appeal as an intervention strategy is to stamp out uncivil behaviour and stamp in appropriate behaviour into students to ensure compliance with classroom-set rules and expectations. The study adopted the quasi-experimental one-group research design. The population of the study comprised 26,162 JSS2 (2020/2021 section) students in 390 public Junior secondary schools in Nasarawa State. The sample size of 50 JSS2 students' intact class was used for the study through a multi-stage sampling technique. The instrument for the study was Teachers' Observation of Classroom Adaptation Revised (TOCA-R), adapted by the researchers for the purpose of data collection, with logical validity indices of 0.79. Cronbach's alpha reliability method was used to test the internal consistency, which yielded 0.77. Mean and standard deviation were used to answer the research questions. The hypotheses were tested at a 0.05 level of significance using a t-test. The finding showed that there is a significant effect of fear appeal on classroom incivilities of public junior secondary school students in Nasarawa State. Based on the findings, it was recommended that fear appeals as a behavioural modification technique can be used to inculcate civil acts into learners.

Keywords: fear appeal, classroom incivility



Iveta Kovalčíková (iveta.kovalcikova@unipo.sk), University of Prešov, Slovakia

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

The primary objective of this conference contribution 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. 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 minutes. 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.

Keywords: reading comprehension; language ability; L1; executive functioning; Exefun-READ intervention

Hefziba Lifshitz * + **Eli Vakil** * + **Shlomit Shnitzer-Meirovitz** # (hefziba.lifshitz@biu.ac.il), *Bar Ilan University, #Levinsky Vingate college

Is there intellectual talent within the population with ID? A new vision of their cognitive ability

This study reexamines intellectual talent within individuals with intellectual disabilities (ID) through general giftedness theories rather than the traditional "idiot savant" perspective. Objectives (a) determining whether intellectual talent in students with ID earning a BA degree is confined to specific cognitive domains or extends to broader abilities, and (b) exploring how endogenous factors (intelligence, cognitive thinking, psychological capital) and exogenous factors (mediation level) predict BA attainment. Twelve students from the Empowerment project participated: six in an academic enrichment group, and six completing BA degrees. Results: The BA group demonstrated higher general intelligence (GIQ), verbal intelligence (VIQ), and early developmental milestones compared to peers. At follow-up, they displayed greater crystallized intelligence, creative thinking, and cognitive modifiability, supporting a global domain approach. Correlations revealed that endogenous factors and mediation levels predicted BA attainment,



aligning with Tannenbaum's theory of giftedness in a population with ID. Identifying and nurturing talent in individuals with disabilities should begin.

Keywords: intellectual disabilities (ID), intellectual talent, intelligence, creative thinking, endogenous and exogenous factors, Tannenbaum's four-factor theory

Hefziba Lifshitz* + Shoshana Nissim* + Haya Aminadav# (hefziba.lifshitz@biu.ac.il), *Bar Ilan University, #Ariel University

Postsecondary University Education Improves Intelligence of Adult Students with Intellectual Disability: A Follow-Up Study

The goals of this follow-up study were to examine (a) the impact of 4.5 years of participation in postsecondary education (PSE) on students with intellectual disability (ID) compared to adults with ID who did not participate in PSE, (b) whether a different impact on crystallized and fluid intelligence after 4.5 years would be found among PSE students with higher and lower initial IQ, (c) micro-level individual differences in each PSE group. The WAIS-III (Wechsler, 2001) was administered at Time and after 4.5 years to PSE students in an inclusive full requirements model for students with higher IQ (n = 6; IQ = 66-72) and in an inclusive adapted requirements model for students with lower IQ (n = 6; IQ = 54-61) and adults with ID who did not participate in the PSE (n = 12). Only PSE students showed improvement in FSIQ, verbal, and performance IQ in this Time 2 evaluation, with individual differences between the students. FSIQ and verbal IQ of students with a higher IQ exceeded the diagnostic cutoff of ID (IQ < 70-75). Despite the small sample size, the findings indicate that time extension and mediation strategies enable adults with mild ID to study in undergraduate courses and achieve academic goals, thus supporting the Compensation Age and the Mastery Learning theories.

Keywords: postsecondary academic education, adults with intellectual disability, adapted enrichment, BA model, crystallized/fluid intelligence

Orly Lipka + Rania Tareef (olipka@edu.haifa.ac.il), University of Haifa

Reading Comprehension Strategies and Teacher Characteristics: A Study of Grade 4 Literacy Teachers

This study examined Hebrew-speaking fourth-grade teachers' content knowledge of reading comprehension strategies and their relationship to their professional background. Data were collected from 98 teachers in Israel through open-ended questions and converted to quantitative data for analysis. The findings revealed that reading strategies (particularly text previewing) and monitoring (especially clarifying and targeted reading) were mentioned by 55-65% of teachers as crucial strategies for understanding text. Notably, approximately 72% of all teachers mentioned



only 1-3 strategies, while about 28% mentioned between 4-9 strategies. Significant correlations were found between years of teaching experience and specific strategy awareness. Additionally, teachers with more professional development participation showed greater recognition of advanced comprehension. These findings suggest the need for teachers' structured strategy training programs and implementation of literacy coaching systems. These targeted improvements in professionalism could significantly enhance teaching capacity and student outcomes in reading comprehension.

Keywords: teachers' knowledge, teachers' pedagogical knowledge, reading comprehension strategies, elementary school

Chipo Malambo* + Susan Chungu# + J. Anitha Menon[~] + Martin Musálek* (Musalek.Martin@seznam.cz), *Faculty of Physical Education and Sport, Charles University, Prague, #Silver Lining Health Care Ltd., Lusaka, Zambia, [~]School of Psychology, Curtin University Dubai, Dubai, United Arab Emirates, [€]Department of Psychology, School of Humanities and Social Sciences, Lusaka, Zambia

The complexity of motor skills could be positively associated with cognitive development from preschool age, Zambian children

Despite strong evidence from high-income countries linking early motor skill proficiency to cognitive development, little is known about this relationship in sub-Saharan Africa. The lack of empirical data limits the global relevance of motor-cognitive models. We examined how diverse motor skills relate to cognitive functions in preschool-aged children in Zambia, where developmental exposures may differ from high-income settings. Fifty-six preschool children (mean age = 4.80 ± 0.57 years) from Lusaka completed motor skill assessments and standardised cognitive testing using the Intelligence and Development Scales–Preschool (IDS-P). Associations were analysed using multiple regression models and ANOVA, stratified by age and sex. Coordination, speed, and agility were significantly linked to cognitive domains. Selective attention was predicted by shuttle run times ($\beta = -1.14$, $p < .001$, $R^2 = 0.35$); visual processing by standing long jump ($\beta = 0.07$, $p = .003$, $R^2 = 0.30$); and phonological memory by throwing accuracy ($\beta = 0.73$, $p = .02$, $R^2 = 0.18$). Associations were stronger among older children (5–6.9 years). Findings demonstrate that complex motor skills are likely linked to cognitive function even in settings shaped by different socio-cultural-environmental factors, underscoring the value of integrating structured motor activities into early childhood education to promote cognitive development.

Keywords: motor coordination, neurodevelopment, physical fitness, early childhood education



Gabriela Málková* + **Barbora Smrčková#** (gabriela.malkova@gmail.com), *Faculty of Education University of South Bohemia, #Faculty of Education, Charles University Prague

Literacy profiles of socially disadvantaged primary school children

The paper presents results from a semi-longitudinal project where we monitored the literacy, pre-literacy, and language skills of 11 Roma children: first at the onset of the first grade of primary school and also six years later.

Individual literacy and language profiles, as well as developmental trends in literacy, were identified by using descriptive and psychometric analyses.

Keywords: pre-literacy, literacy, language skills, primary school, social disadvantage

Kingsley Chinaza Nwosu* + **Elijah Tooohukwu David*** + **Wp Wahl#** + **Theresa Folashade Kolade[~]** + **Kate Ekedama[™]** (kc.nwosu@unizik.edu.ng), *Nnamdi Azikiwe University, Awka, # University of the Free State Bloemfontein, South Africa, [~]Nasarawa State University, Keffi, Nigeria, [™]Delta State University, Abraka, Nigeria

Do Underachieving Students' Resilience and Hope for the Future Improve by Their Participation in a Growth Mindset Programme?

Our study investigated the potential of a growth mindset intervention programme to enhance resilience and hope for the future among academically underachieving students in a resource-constrained context. Challenges linked to academic underachievement potentially expose students to diminished motivation and limited future aspirations, particularly in contexts where schooling holds great opportunities for survival. Anchored on the theoretical framework of Carol Dweck's growth mindset, we utilized the quasi-experimental research design, involving 70 academically underachieving secondary students assigned to two groups: experimental group, N = 37; control group, N = 33. Data was collected using validated scales for resilience and hope, administered before and after the intervention programme. The intervention programme lasted for a school term of 13 weeks. Mean, standard deviation, and ANCOVA were employed for data analysis. Major findings revealed a significant main effect on their resilience scores, Experimental Group (M=3.25, SD = 0.19), Control Group (M=2.326, SD = 0.71), $F(1, 69) = 59.085$, $p < 0.001$, partial $\eta^2 = 0.469$. Furthermore, the experimental group (M=3.19, SD = 0.35) showed a significant improvement in their hope for the future than the control group (M=2.28, SD = 0.31), $F(1, 69) = 131.745$, $p < 0.001$, partial $\eta^2 = 0.663$. It was determined that even in a setting with limited resources, the growth mindset programme might be useful in enhancing the resilience and optimism for the future of academically underachieving adolescents. Implications of the findings were discussed.

Keywords: underachievement, growth mindset, resilience, hope, achievement



Ursula Ifeoma Oparaugo (ui.oparaugo@unizik.edu.ng), Nnamdi Azikiwe University, Awka

Metacognitive Skills, Parental Involvement as Correlates of Academic Achievement of Secondary School Students in Rural Areas in Anambra State, Nigeria

Metacognition refers to learners' ability to plan, monitor, evaluate, and make changes to their learning behaviours in order to confront and tackle challenges effectively. Metacognitive skills include planning, mental scripting, positive self-talk, self-questioning, self-monitoring, and other learning strategies. Parental involvement refers to direct efforts provided by the parents in order to improve the academic achievements of their children. Three research questions and three null hypotheses (Ho) will guide the study. Two instruments, titled "Metacognitive Skill Questionnaire (MCSQ) and Parental Involvement Questionnaire (PIQ) will be employed. Data from the West African Examination Council Record Report (WAECRR) for the 2023/2024 academic session will be used. Using the correlational method, the expected result will show if metacognitive skills and parental involvement have a relationship with the academic achievement of students in English Language in rural areas.

Keywords: metacognition, metacognitive skills, parental involvement, academic achievement

Pavla Palkovičová + Šárka Portešová + Hana Svozilová + Michal Jabůrek + Ondřej Straka + Petr Palíšek (481720@mail.muni.cz), Masaryk University, Faculty of Social Studies

Development of Fufan: Innovating Scientific Thinking Assessment through Gameplay

Identifying gifted children in specific domains requires a robust set of diagnostic tools. In response, we are developing Fufan, an engaging online game designed to assess scientific thinking in STEM. This game will not only evaluate students' understanding of scientific concepts but also their metacognitive regulation. In Fufan, second-grade elementary students nurture an alien creature, making decisions based on clues from the game's instructions and the creature's behaviour, all aimed at helping Fufan grow and prosper. This design allows students to create optimal living conditions for their extraterrestrial companions without relying on prior knowledge or familiar patterns. By encouraging the formulation and testing of multiple hypotheses, Fufan fosters scientific thinking and creativity. The poster will showcase Fufan's evolution from its pilot phase to the current iteration, highlighting the theoretical foundations that inform its design and the specific variables incorporated. This research is supported by TAČR TQ01000430.

Keywords: giftedness, cognitive assessment, STEM, scientific thinking, metacognition



Nathalie Parry* + **Robert Reeve#** + **Lorraine Graham#** + **Bert De Smedt~** (nathaliep@student.unimelb.edu.au), *University of Melbourne, Australia, and KU Leuven, Belgium, #University of Melbourne, Australia, ~KU Leuven, Belgium

Dynamic assessment provides a more complete picture of early numerical competency

Children enter school with diverse numerical abilities. These numerical abilities are usually measured with standardized achievement tests, which are static measures of children's performance. These measures might not fully capture children's potential to learn mathematics. We therefore evaluated children's responsiveness to instruction or 'learning potential' through dynamic assessment. We compared the early numerical competency of 58 children aged 4-6 years, using both the TEMA-3 (standardized static assessment) and dynamic assessment measures. Our dynamic assessment focused on the number and nature of help children require for success. We evaluated mathematical language and key early numerical competencies, counting, ordinality, transcoding, and addition. While static and dynamic assessments identified differences in children's early numerical ability, findings suggest that static assessments alone may not fully capture children's early numerical competency. Continued research should explore associations between early numerical ability and early numerical learning potential as children transition to formal schooling.

Keywords: dynamic assessment, learning potential, early numerical competencies

Nurit Paz-Baruch (nurit.paz@biu.ac.il), Bar Ilan University

Exploring Mathematical Creativity, Meta-Creative Thinking, and Self-Efficacy of Students with High Mathematical Abilities

Creativity is seen as an essential competency for the 21st century, especially in the fields of science, technology, engineering, and mathematics. The study examined differences in mathematical creativity, meta-creative thinking, and self-efficacy among students with high mathematical abilities (HA; n=38) and average mathematical abilities (AA; n=46). Participants completed a mathematical creativity task and questionnaires assessing meta-creative thinking and self-efficacy. The results revealed significant group differences across measured variables. HA students scored significantly higher than AA students in mathematical creativity (i.e., fluency, flexibility, and originality), meta-creative thinking, and general self-efficacy. No significant differences were found in mathematical self-efficacy.

The findings highlight the cognitive processes related to mathematical creativity among high-ability students, suggesting that they employ meta-creative strategies more frequently in mathematical tasks. The findings contribute to a deeper understanding of the cognitive processes underlying mathematical creativity and meta-creative thinking, offering valuable insights for designing educational intervention programs that will support students with high mathematical abilities.

Keywords: mathematical creativity, meta-creative thinking, mathematical ability, self-efficacy



Nurit Propp^{*#~} + Hefziba Lifshitz^{*} (nurit.propp@gmail.com), ^{*}Bar Ilan university, [#]Herzog College, and [~]Talpiot College

Emotional and Intellectual Intelligence in Adolescents and Adults with Intellectual Disabilities Compared to Typically Developing Individuals, Correlations, and Developmental Trajectories

Studies examining cognitive development in intellectual disability (ID) support the Compensation Age Theory, which suggests that intelligence in adults with ID peaks at age 40-45 (Lifshitz, 2020; Lifshitz-Vahav, 2015). For the first time, this study investigated emotional intelligence (EI) trajectories among adolescents (CA = 16-21) and adults (CA = 22-40) with ID (IQ = 40-70) compared to typically developing peers. Three main models for EI were developed: the Abilities Model (cognitive), the Traits Model (emotional), and the Mixed Model (both dimensions). The study included 55 individuals with ID and 54 with typical development. Results revealed that adults with ID demonstrated higher emotional abilities than adolescents in cognitive-based models. Furthermore, significant correlations were found between all three models in both research groups, indicating strong connections between cognitive and emotional components. The findings extend the Compensation Age Theory to EI, suggesting that cognitive maturation and life experience contribute to emotional development in the ID population.

Keywords: emotional intelligence, intellectual disability, continuous (compensatory) trajectory

Manal Mohammad Serhan + Adina Shamir (manalser7an@gmail.com), Bar Ilan university

Activity with E-book for promoting Vocabulary and Reading Words of Students with Specific Learning Disorder, whose mother tongue is Arabic, and whose second language is Hebrew

Specific Learning Disorder (SLD) is the most common disability in the Israeli education system. Arabic-speaking students with SLD are not only required to cope with their difficulties in acquiring spoken and written language but also with the complexity of the Arabic language itself, characterized by diglossia.

The study aimed to examine the contribution of activity with E-books for promoting literacy (vocabulary and reading words) among Arabic-speaking typically developed students, as compared to students with SLD, depending on the type of book (printed book/E-book).

Data were collected from a sample of 164 students from five Arabic-speaking elementary schools. Half of the students with typical development (n = 83), and half with SLD (n = 81). Each of the groups was divided randomly into two sub-groups. The findings show that the SLD children improved significantly in their vocabulary following activity with the E-book. The findings will be discussed at the conference.

Keywords: specific learning disorder, E-Book, bilingual



Michal Schreiber-Divon (schrmichal@gmail.com), Bar-Ilan University; Herzog College; Talpiot College

Perceptual and Value-Oriented Change in a Multidisciplinary Team on the Topic of Sex Education for Intellectual Disabilities Students

Addressing sexuality among older students (ages 12-21) with intellectual disabilities is both complex and sensitive. Complexity arises from limited knowledge and experiences in the sexual domain, along with factors inhibiting normal psychosexual development. Sensitivity stems from the students' vulnerability to exploitation and the discomfort professionals face when teaching this topic, particularly in religious schools.

Given these challenges, developing and implementing a curriculum on this subject is a significant task. This research focuses on the "Shalom" Experimental State Religious School, which has been constructing and applying such a curriculum for years. Findings reveal that the success of implementation depends on professionals' attitude changes.

This ethnographic case study involved 29 interviews, 92 lesson observations, recordings of classroom lessons, and documentation of 40 professional team meetings. The study highlights the critical role of multidisciplinary teams in overcoming challenges and promoting effective education on sexuality for students with intellectual disabilities.

Keywords: sexual education, intellectual developmental disability, attitudes

Michal Schreiber-Divon + Rachel Shoham + Shira Rosenberg + Miriam Neumayer + Yael Lur (schrmichal@gmail.com), Bar-Ilan University; Herzog College; Talpiot College

Teaching Challenges in Emergency Situations: Differences Between Ultra-Orthodox and Non-Ultra-Orthodox Teachers in Perceptions of Their Functioning and Pedagogical Flexibility

Prolonged existential threats, such as those experienced by Israeli citizens since October 7, can impair functionality across various domains, including education. Teachers are required to simultaneously cope with personal and professional pressures during such periods. The performance of teachers in these contexts, particularly within the ultra-Orthodox community, has received little research attention (Malin et al., 2024).

The Ultra-Orthodox community in Israel is characterized by intentional separation aimed at preserving its values and social order in response to external and internal threats (Goodman, 2009). This community exhibits limited use of technology, adherence to traditional values, and deference to religious authorities, known as "gedolei hador" (Brown, 2017; Cohener, 2020). These characteristics significantly influence the pedagogical flexibility of ultra-Orthodox teachers when facing crises. It is crucial to examine how ultra-Orthodox cultural norms affect teachers' flexibility in crises, and whether they impact only flexibility.



This study compares the Ultra-Orthodox and non-Ultra-Orthodox communities, considering their substantial cultural and social differences. It explores whether differences exist between the two groups of educators in their teaching performance and perceptions, particularly in activities emphasizing the preservation of existing structures versus those requiring adaptation.

Keywords: pedagogical flexibility, ultra-orthodox community, teacher functionality, existential threat

Shelley Shaul + Doris Toledano Kiper (shelleys@edu.haifa.ac.il), The Department of Learning Disabilities, Edmond J. Safra Brain Research Center for the Study of Learning Disabilities, University of Haifa

The Effects of Linguistic, Cognitive, Emotional, and Environmental Components on Emerging Literacy in Kindergarten and Reading Abilities in the First Grade

This longitudinal study investigated how environmental, emotional, and cognitive factors influence emergent literacy (phonology, orthography, and oral language) development in kindergarten and subsequent reading (fluency and comprehension) abilities in first grade. The study followed 161 children aged 5-7 years. Results revealed that cognitive variables significantly predicted all emergent literacy components in kindergarten, while environmental factors specifically contributed to language and orthographic knowledge, and less to phonological awareness. Emotional measures showed no direct contribution to emergent literacy. In first grade, reading abilities and comprehension were significantly associated with all emergent literacy variables and cognitive factors, with environmental variables showing stronger links to reading comprehension. These findings highlight the fundamental role of cognitive abilities in both emergent literacy acquisition and subsequent reading development. The identified patterns of influence across these components may serve as valuable indicators for early identification of children at risk for reading difficulties, enabling timely intervention strategies.

Keywords: emergent literacy, reading, cognitive skills, environmental factors, emotional factors.

Varda Sobelman-Rosenthal (vardasob770@gmail.com), Bar-Ilan University

Improving Mediated Interaction Between Staff and Toddlers with Complex Developmental Delays – Using Virtual Reality

Studies highlight the critical role of adult-child interaction quality in early childhood development (Baardstu et al., 2021; Ansari et al., 2020).

Traditional intervention programs often target only one dimension—emotional, cognitive, or behavioral (Dolev et al., 2023). This study examines the MISC-CAB intervention program, incorporating psychological capital as a mediating variable, to improve multidisciplinary caregivers'



attitudes toward cognitive modifiability in toddlers with developmental delays and enhance interaction quality.

Klein (2008) outlined mediation criteria influencing adult-child interactions, later adapted for individuals with disabilities (Lifshitz, 2010). The study involved 45 caregivers divided into three groups: an experimental group using MISC-CAB with Virtual Reality (VR) in which caregivers engage actively in the intervention process, another using MISC-CAB without VR, and a control group.

The findings suggest that combining MISC-CAB with VR significantly enhanced the cognitive and emotional quality of interaction between caregivers and the children and improved their attitudes toward them.

Keywords: virtual reality, MISC-CAB, intervention, caregivers

Idit Sulkin (idsulkin@gmail.com), Talpiot Academic College

The Effect of Post-Secondary Music Training Program on the Sense of Competence and Motivation of Caregivers in Daycare Centres (Birth to Age 3)

This study examined whether participation in training that included academic, practical musical knowledge enhances caregivers' sense of competence and motivation in their work. Caregivers in daycare centres shape the daily routine of children. Consequently, their behaviour and skills play a pivotal role in shaping tomorrow's generation. Therefore, professional training and motivation are critical factors in enhancing the quality of caregivers' work. Music is a well-recognized discipline used in young children's education. The study sample comprised 150 caregivers who participated in a music course and completed questionnaires regarding their training experience. The findings revealed that the training program significantly contributed to increasing caregivers' sense of competence and motivation and improved their daycare educational management. The study findings demonstrate that combining academic knowledge with practical educational musical materials may be a significant means to enhance the work motivation of caregivers, thereby improving their work and providing quality care to young children.

Key words: music; motivation; caregivers; competence

Idit Sulkin (idsulkin@gmail.com), Givat Washington College of Education

The Impact of Academic Training on Special Education Kindergarten Teachers' Use of Music

This study explores the impact of academic training on special-education kindergarten teachers' attitudes, practices, and use of music. Music is a powerful tool in special education, supporting the cognitive, social, motor, and linguistic development of children with special needs. Interviews



were conducted with 39 kindergarten teachers to examine their experiences with academic training, implementation practices, and perspectives regarding music education. The findings reveal that academic curricula inadequately prepare teachers for practical challenges, leaving a gap in specialized musical knowledge. Despite this, kindergarten teachers maintain positive attitudes toward using music and employ it extensively in their classrooms, often relying on social media resources. However, these platforms lack the depth needed for tailored approaches. The study highlights the necessity for enhanced music training and accessible, technology-based resources and emphasizes the need for institutional refinement of music education programs, which could better align training with classroom needs, improving special-education kindergarten teachers' efficacy and outcomes for children.

Keywords: special education, kindergarten teachers, music, academic training

Dalia Tal + Yehudith Akiva + Hefziba Lifshitz (daliatal51@gmail.com), Bar Ilan University

Impact of workshop on teachers' attitudes towards cognitive modifiability and curriculum planning for students with intellectual disabilities

An educational approach espousing cognitive development is necessary for students with intellectual disabilities, but teachers' attitudes and abilities to implement this are unclear. This study investigated the impact of a professional development workshop on special education teachers' attitudes towards cognitive modifiability and their self-efficacy in providing curriculum accommodation for students with intellectual disabilities. Participants were divided into a workshop group (N=31) and a control group (N=27). Mixed ANOVA analysis revealed significant differences between the groups; the post-workshop group showed improvement across all variables. Hierarchical regression analysis demonstrated the workshop's contribution to improving attitudes towards cognitive modifiability (28.8%) and curriculum access (69.9%). The findings underscored the significance of teacher training in transforming attitudes and broadening understanding of the cognitive and academic potential of students with intellectual disabilities. They demonstrated that professional development could encourage teachers' beliefs about effective instruction for students with intellectual disabilities, particularly regarding students' capacity for cognitive improvement.

Keywords: special education, professional development, cognitive modifiability, curriculum planning, intellectual disabilities



Dana Tal + Shelley Shual (codana7@gmail.com), Edmond J. Safra Brain Research Center for the Study of Learning Disabilities, Department of Learning Disabilities, University of Haifa

The Role of Cognitive Flexibility in Reading and Math Development: A Longitudinal Study

This longitudinal study examined how cognitive flexibility (CF) relates to academic performance in reading and mathematics among 197 children from third to fifth grade. CF, defined as the ability to switch between categories, rules, or tasks and adapt across multiple aspects of a strategy, was analyzed in relation to basic skills (reading and arithmetic fluency) and complex skills (reading comprehension and solving math word problems). Annual assessments revealed significant CF development from third to fifth grade, $F(2, 164) = 147.16, p < .001, \eta^2 = .43$. CF was consistently related to reading and math skills, showing stronger associations with complex tasks compared to simpler ones, and a greater association with math than with reading. Although CF's connection to academic tasks diminished slightly with age, it remained significant, suggesting that as children develop, they increasingly rely on domain-specific abilities while CF continues to play a foundational role in academic performance.

Keywords: cognitive flexibility, reading, mathematics, longitudinal study, elementary school

Dana Tal + Shahar Dotan + Orly Rubinsten + Tami Katzir + Michal Ben-Yair (codana7@gmail.com), Edmond J. Safra Brain Research Center for the Study of Learning Disabilities, Department of Learning Disabilities, University of Haifa

The roles of math and reading anxiety in arithmetic word problems: The mediating role of arithmetic fluency and reading comprehension

Word problems in primary mathematics require both numerical and literacy skills, posing challenges for young learners. This study aims to examine how math and reading anxiety affect word-problem performance, focusing on the mediating roles of reading comprehension and arithmetic-fact fluency. A sample of 398 third graders was analyzed, excluding those with low working memory, word reading fluency, or symbolic-magnitude comparison. Structural equation modeling showed that math anxiety directly impaired performance and indirectly affected it through reduced arithmetic-fact fluency. Reading anxiety did not directly affect performance but impaired problem-solving by reducing reading comprehension. These findings highlight the multi-componential nature of word problems, which rely on numerical cognition, literacy skills, and emotional factors. Addressing math and reading anxiety is essential, as these emotional factors, alongside cognitive and academic skills, shape the integrated abilities required for solving word problems.

Keywords: word problems, math, reading, anxiety, cognition



Yechiel Tanami* + **David Tzuriel#** (tanamiy@gmail.com), *Hemdat College of Education, #Bar-Ilan University

Prediction of Math Achievements by Executive Functions and Math Self-Efficacy among Grade 12 Students in Three Study Levels

This study examined the contribution of metacognitive and behavioural executive functions (EFs) to mathematics achievements and determined whether math self-efficacy (MSE) mediates between the two. The sample comprised 409 12th-grade students across three study levels: low (LSL), medium (MSL), and high (HSL). Path analysis and Structural Equation Modelling were employed to analyse the complex relationships between executive functions, MSE, and mathematical achievements. Research findings revealed distinct patterns of executive function contributions to mathematical performance at each level: at the LSL, metacognitive skills influenced achievements; at the HSL, behavioural regulation skills were predictive; and at the MSL, both function types were significant. Additionally, MSE was found to directly impact mathematical achievements across all study levels and mediate between executive functions and achievements in the MSL and HSL. The findings offer critical insights into differentiated approaches to mathematical education and potential strategies for teacher training to address diverse student learning needs.

Key words: behavioural regulation; executive functions; metacognition; math achievement; math self-efficacy

Gilat Trabelsi + Ronit Ben-Simon (gilat.trabelsi@gmail.com), Kaye Academic College

The Effect of the Dynamic Assessment Version of the Rey Auditory-Verbal Learning Test (RAVLT) on Working Memory Performance of Students with ADHD

The goal of the current study was to initially examine the effect of the dynamic assessment (DA) Version of the Rey Auditory-Verbal Learning Test (RAVLT) on the Working Memory (WM) Performance of Students with ADHD (Attention Deficit Hyperactive Disorder). 123 students with ADHD were randomly assigned to experimental (N=55) and control (N=68) groups. RAVLT was conducted as a split test with or without a semantic-mediated learning phase. The pre- to post-learning effects were analysed, and the results indicate a significant enhancement of WM's performance in the experimental group. The conclusions refer to the effect of semantic mediation (SM) in a DA compared to a static version. To generalize the impacts of additional mediated strategies for learning styles and capacities, more research is required.

Keywords: Rey Auditory-Verbal Learning Test (RAVLT), dynamic assessment (DA), working memory (WM), semantic mediation (SM), attention deficit hyperactive disorder (ADHD)



David Tzuriel + Einat Ben-Amram + Adina Shamir (david.tzuriel@biu.ac.il), Bar-Ilan University

Computerized Dynamic Assessment of Analogical Thinking: Effects of SES, and Intervention on Modifiability of Analogical Thinking, Executive Functions, and Math Ability

The study aimed to investigate mediation's effects in a novel computerized setting on the modifiability of analogical thinking, executive functions (EF), and math ability. Grade 8 students ($n = 164$) from different SES levels were randomly assigned to experimental and control groups. Both groups were given the Computerized Analogical Thinking Modifiability (Com-ATM) and Math Ability tests. The Com-ATM generates pre- and post-teaching accuracy scores, three EFs, and three efficiency scores. Students in the experimental group practiced mediated problem-solving strategies, whereas students in the control group practiced the problems without mediation. The findings reveal significantly higher pre-to post-teaching analogy scores in the experimental group than in the control group, accompanied by improved self-regulation indicators. Hierarchical regression analysis showed that indicators of EF modifiability uniquely predicted analogical thinking modifiability. Structural Equation Modeling analysis revealed that EF and treatment significantly predicted analogical modifiability, whereas math ability was predicted considerably by EFs and SES Level.

Keywords: analogical thinking, computerized assessment, executive functions, math ability, mediation

Rotem Yinon* + Dana Tal* + Shelley Shaul* + Tami Katzir* + Yaniv Kanat-Maymon# (rotemwr82@gmail.com), *Edmond J. Safra Brain Research Center for the Study of Learning Disabilities, Department of Learning Disabilities, University of Haifa, #Baruch Ivcher School of Psychology, Reichman University

Developmental Pathways of Dyslexia and Their Early Cognitive-Linguistic Predictors

Recent longitudinal research has revealed diverse developmental pathways of dyslexia, yet few studies have examined their pre-reading cognitive-linguistic predictors, especially in non-Western languages. This 5-year study investigated developmental pathways of dyslexia in Hebrew—characterized by rich morphology and a unique transition from transparent to deep orthography—and their kindergarten cognitive-linguistic predictors (phonological awareness-PA, letter knowledge-LK, rapid naming-RAN, and morphological awareness-MA). Following 515 Hebrew-speaking children from kindergarten through Grades 1 and 4, we identified three dyslexia profiles (scoring ≤ 16 th percentile on word-reading fluency) among struggling readers ($n=127$): persistent (30%), resolving (35%), and late-emerging (35%). Each showed distinct kindergarten predictor patterns: the persistent group exhibited deficits in PA, LK, and RAN; the resolving group in PA and LK, while the late-emerging group uniquely showed deficits in MA and LK. These findings highlight the importance of comprehensive early assessments and interventions targeting cognitive-linguistic skills to account for distinct dyslexia pathways.



Keywords: dyslexia pathways, cognitive-linguistic predictors, early identification

Hayley Weigelt + Gili Peleg + Yoel Tawil (hayleyw@hit.ac.il), Holon Institute of Technology

The 'Be Creative' Effect: A Real-Time Cognitive Analysis of Creativity Instructions Using Eye-Tracking and Facial Expression Data

The analysis of real-time cognitive processing of the instruction 'to be creative' in divergent thinking tasks is eminently relevant yet remains largely unexplored. This study innovates by observing reactions and real-time cognitive engagement among college students (N=120) who were exposed to the word 'creativity' using eye-tracking, facial expressions, and narrative analysis. We examined how "be creative" prompts versus other alternatives are perceived, processed, and implemented in creative tasks, revealing novel insights regarding attention patterns, cognitive load, and information processing. The main results demonstrate that while both "creative" and alternative instructions triggered increased cognitive engagement (e.g., longer eye fixation times and distinct facial muscle activation patterns), their cognitive effects were interchangeable and mildly effective. Other insights relating to the cognitive mechanisms underlying creativity-related instruction processing as shaped by the ubiquity of creativity in educational contexts and its implications regarding creativity enhancement in educational settings will be discussed.

Keywords: creativity, cognitive processing, multi-modal analysis

Mati Zakai-Mashiach (matizakai@gmail.com), Beit-Berl Academic College

Through Their Own Eyes: A Retrospective Exploration of Autistic Students' Experiences in General Education

Enrollment of autistic children in general schools has increased over the past decade. However, access to schools does not mean inclusion. Research on autistic individuals' perspectives regarding their school experience remains limited, with most studies focusing on middle school years. This study explores the retrospective experiences of 10 autistic individuals aged 19 to 25 who attended general schools from elementary through high school. Semi-structured interviews and the pictorial "Blob Tree" technique were used as a visual method to elicit self-narratives. Recurring themes emerged across educational stages: elementary school was marked by feelings of difference and ambiguity, middle school by the impact of autism diagnosis and instability, while high school represented a turning point characterized by increased self-confidence, acceptance of autism, and fulfillment. These findings highlight the importance of autistic individuals' narratives to understand their developmental journey and emphasize the need for enhanced inclusivity in schools.

Keywords: autistic individual, inclusion, general schools, retrospective study