ST&D 2025: 2025 ANNUAL MEETING OF THE SOCIETY FOR TEXT AND DISCOURSE

PROGRAM FOR WEDNESDAY, JULY 9TH

Days: next day all days

View: session overview talk overview

09:30-12:00 Session 1: Preconference: “Texts Changing Minds”- Workshop in Honor of Lucia Mason

LOCATION: Room T2

12:00-13:15 Mentoring Lunch (only for participants in mentorship program)

13:30-14:00 Session 2: Opening Ceremony

LOCATION: Room T3

14:00-15:00 Session 3: Distinguished Scientific Contribution Award Presentation: Arthur Glenberg

A rapprochement: Embodied representations for cognitive discoveries

Embodied representations of meaning are necessary, not just a theoretical option. Nonetheless, the great majority of discoveries about the psychology of text and discourse derive from a cognitive approach to meaning. Are these two facts irreconcilable? I propose and demonstrate a rapprochement in which cognitive discoveries are examined through an embodied lens.

CHAIRS: *Joe Magliano* and *Art Graesser*
LOCATION: Room T3

15:15-16:35 Session 4A: Artificial Intelligence in Reading and Writing

CHAIR: *Ivar Braten*
LOCATION: Room T1

15:15 *María García-Serrano*, *Rubén Delgado Álvarez*, *J. Ricardo García Pérez* and *Javier Rosales Pardo*
Does the use of Artificial Intelligence to complete an assigned university task, that consists of writing an essay after reading a text, harm the comprehension of the text and the attention paid to source information?
PRESENTER: *María García-Serrano*

ABSTRACT. This presentation examines whether using an Artificial Intelligence tool to complete an assigned university task (writing an essay after reading a text), harms the comprehension of the

text information provided to the students and the attention paid to the source information included in the text. Data were collected from university students' spontaneous use of these tools. Results suggest that students employed these tools for writing the essay rather than extracting information from the text.

15:35 *Sarit Barzilai* and *Liron Primor*

Effects of Generative AI Use on Comprehension and Integration of Multiple Texts

PRESENTER: *Sarit Barzilai*

ABSTRACT. We compared how 147 adults engaged in multiple text reading and writing tasks with versus without ChatGPT. Essays that were written with ChatGPT assistance were longer and had higher levels of integrative argumentation, source use, and source citations. However, ChatGPT users read less, had lower single- and multiple-text comprehension, and found the task less interesting. ChatGPT use also influenced the essays' conclusions. Thus, ChatGPT use appears to involve substantial trade-offs that raise critical instructional challenges.

15:55 *Philipp L. Marten*, *Mykola Makhortykh* and *Marc Stadtler*

Can AI take over my evaluation task? Probably not! Comparing sourcing and corroboration performance of ChatGPT with that of adolescents and young adults

PRESENTER: *Philipp L. Marten*

ABSTRACT. This study compares ChatGPT's performance in sourcing and corroboration tasks with that of lower secondary, upper secondary, and teacher students. While ChatGPT outperformed all human groups in sourcing, it struggled with corroboration, performing similarly to lower secondary students. Findings indicate a developmental trend in evaluation skills, with improvements through adolescence but a plateau in corroboration abilities. Results suggest that while ChatGPT can assist with source evaluation, it cannot replace human judgment in online information assessments.

16:15 *Afra Sturm*, *Valentin Unger*, *Fabian Grünig* and *Martina Conti*

Human vs. Machine – Comparing the performance of humans and Large Language Models (LLMs) in assessing students' writing using benchmark ratings

PRESENTER: *Afra Sturm*

ABSTRACT. Large Language Models (LLMs) can rate texts in writing instruction, thereby reducing subjective bias and the workload of teachers. Benchmark ratings provide a global judgment by comparing texts to benchmarks. In this study, texts (grade 4/5) were assessed by human raters and LLMs. Preliminary results show high correlations between human and LLM scores, with humans rating slightly higher. This suggests that LLMs have the potential to augment text assessment in education and research.

15:15-16:35 Session 4B: Reading Interventions

CHAIR: *Kalypso Iordanou*

LOCATION: Room T2

15:15 *Deirdre Fels*, *Franziska Baier-Mosch* and *Carolin Hahnel*

Information literacy interventions in secondary and tertiary education: A systematic review

PRESENTER: *Deirdre Fels*

ABSTRACT. Secondary and tertiary students often do not possess sufficient Information Literacy (IL) skills in the online context, creating the need to identify particularly effective interventions. Therefore, we have conducted a systematic review to examine the availability and effectiveness of IL interventions targeting online IL skills of secondary and tertiary students. This contribution will present the first results, and the coding used to identify relevant literature.

15:35 *M. Anne Britt*, *Taneisha Vilma*, *Amanda Durik*, *Jean-Francois Rouet* and *Kaya Easley*

Reading to learn: Supporting comprehension with a task model prompt

PRESENTER: *M. Anne Britt*

ABSTRACT. Many college students are underprepared for discipline-specific reading. To better understand students' development of this skill, we randomly assigned two groups to read a textbook excerpt for understanding (spontaneous) or with a task model prompt. We expected that providing this prompt would increase use of discipline-specific goals and strategies. We found that both groups learned theory (initiating, primary path and outcome) but those given the prompt learned more overall and about the studies in particular.

15:55 *Silvia Della Rocca* and *Christian Tarchi*

Improving Disciplinary Literacy Through Reading Interventions: A Systematic

Literature Review
PRESENTER: *Silvia Della Rocca*

ABSTRACT. We conducted a systematic literature review, adhering to PRISMA guidelines, and analyzed 34 studies to synthesize empirical evidence on disciplinary literacy and effective strategies for teaching reading to learn within disciplines. The results underscore the effectiveness of interventions aimed at fostering disciplinary reading, writing, reasoning, and vocabulary acquisition, with differences across school grades. The critical role of teachers' professional development is discussed. Future research should explore the potential of digital resources in enhancing disciplinary literacy.

16:15 *Eleonora Pizzigallo*, *Ambra Fastelli*, *Enrico Sella*, *Enrico Toffalini* and *Barbara Carretti*

How can I improve text comprehension? Reading comprehension interventions in poor comprehenders: a systematic review and meta-analysis.
PRESENTER: *Eleonora Pizzigallo*

ABSTRACT. This systematic review and meta-analysis synthesizes findings from 20 studies, focusing on ten that quantitatively assess reading comprehension interventions for poor comprehenders. Results reveal moderate positive effects among poor comprehenders in pre-post and pre-follow-up comparisons. Test type and delivery agent factors influence effects: standardized tests reduce effect sizes while teacher-led interventions increase them. These findings highlight how teacher involvement and assessment methods affect intervention effectiveness, offering insights for evidence-based educational practices.

15:15-16:35 Session 4C: Assessment of Reading and Listening Comprehension

CHAIR: *Kate Cain*
LOCATION: Room T4

15:15 *Birgit Vogt* and *Markus Linnemann*

Using linguistic processes to measure generalization competence
PRESENTER: *Birgit Vogt*

ABSTRACT. Generalizations are a prerequisite for cognition and communication in the context of academic language functions. By focusing on significant linguistic generalization processes and defining three linguistic dimensions as the basis for assessing generalization competence, this study aimed to answer the question of how the

comprehension of generalizations can be measured in primary school children and how to use the outcomes for data-based decision-making. Six task formats were evaluated for internal consistency and construct validity (n=261).

15:35 *Gerardo Pellegrino*, *Eleonora Pizzigallo*, *Pasquale Anselmi* and *Barbara Carretti*
Rethinking reading comprehension tasks through the lens of Item Response Theory
PRESENTER: *Gerardo Pellegrino*

ABSTRACT. In this study, we applied Item Response Theory (IRT) to examine the psychometric properties of an Italian battery of reading comprehension tasks for primary and middle school students. Each grade is assessed with separate tasks, and IRT enables comparisons across these tasks. After identifying the best-fitting IRT model, we examined the Test Information Function and item discrimination parameters to highlight the additional insights these metrics offer into the tasks' functioning.

15:55 *Igor Osipov*, *Patrick Dahdah* and *Johannes Naumann*
Impact of Linguistic Item Properties on Item Difficulty in Timed Testing of Listening Components
PRESENTER: *Igor Osipov*

ABSTRACT. The study examined local coherence processing in German elementary school children using a timed and untimed auditory task. Results supported the cumulative complexity approach: positive-causal coherent relations were the easiest, while negative-causal incoherent items were the most difficult. In the timed condition, all items were more difficult, and the difference in difficulty between items was larger. Findings suggest that timed testing may enhance the differentiation between ability levels, improving the assessment of listening component skills.

16:15 *Hyejin Hwang*, *Panayiota Kendeou*, *Nana Kim*, *Jasmine Kim*, *Paul van den Broek* and *Byeong-Young Cho*
ROSCO: A New Measure for Readers' Orientation toward Standards of Coherence
PRESENTER: *Hyejin Hwang*

ABSTRACT. Standards of coherence are criteria of comprehension that readers implicitly or explicitly adopt. Despite its importance for reading comprehension, almost no measure for standards of coherence has been available. Thus, we

developed and tested a measure for reader-based dimensions of standards of coherence . The measure includes five factors: (1) reading attitudes and habits, (2) goal setting and monitoring, (3) coherence building strategies, (4) metacognition strategies, and (5) reading self-efficacy.

16:45-17:30 Coffee Break

17:30-19:00 Session 5: Poster Session I and Reception

LOCATION: Rooms 1B, 1C, 1D

Ivar Bråten, *Natalia Latini* and *Helge Strømsø*
Exploring Students' (Mis)conceptions About ChatGPT-Generated Text: A Qualitative Study
PRESENTER: *Ivar Bråten*

ABSTRACT. With the advent of large language models (LLMs), a major concern has become how students can be taught artificial intelligence (AI) literacy. Arguably, a necessary starting point for teaching AI literacy is knowledge about students' pre-existing understanding of how LLMs work and the textual output they generate. In this study, we therefore asked high-school students (n = 267) broad open-ended questions about these issues and used thematic analysis in qualitatively exploring their conceptions and misconceptions.

Anke Schmitz, *Rahel Bär*, *Christina Holzwarth* and *Michael Ruloff*
Effects of ChatGPT-instruction on text comprehension, knowledge application, and user experience in struggling students
PRESENTER: *Anke Schmitz*

ABSTRACT. This study examines how ChatGPT instruction affects reading comprehension, knowledge application, and user experience in struggling students. An intervention with 180 students compares guided instruction on AI use versus self-directed learning. The impact on comprehension, critical prompting, and user experience is assessed through pre-, post-, and follow-up tests. Findings will provide insights into AI-assisted learning, its benefits for weaker students, and how educators can integrate ChatGPT effectively into teaching practices.

Mohammad Amin Samadi, *Seehee Park*, *Jaeyoon Choi*, *Spencer Jaquay* and *Nia Nixon*
AI Teammates and Inclusion Analytics: Revolutionizing Equity in STEM Collaboration
PRESENTER: *Nia Nixon*

ABSTRACT. STEM teams drive innovation, yet the underrepresentation of women and underrepresented racial minorities (URMs) limits equitable participation.

This study proposes AI-driven interventions to foster inclusivity in STEM collaboration. AI teammates will provide real-time interventions to mitigate exclusionary behaviors and enhance engagement by analyzing dynamic communication patterns and developing inclusion analytics. This research advances AI in education, team dynamics, and equity in STEM, offering data-driven insights to create more inclusive collaborative learning environments.

Essi Viertola, *Eija Räikkönen*, *Pirjo Kulju*, *Annika M. Svedholm-Häkkinen*, *Carsten Elbro* and *Carita Kiili*
Validating Deep Cloze Reading Comprehension Test for Finnish Sixth Graders
PRESENTER: *Essi Viertola*

ABSTRACT. Comprehending texts requires readers to build a coherent representation of the text by making global inferences and integrating textual information with one's prior knowledge. The Deep Cloze test, validated among adults, is developed to measure these skills. The aim of the ongoing study is to assess convergent, concurrent, and discrimination validity of the test adapted for Finnish sixth graders.

Raffaele Dicataldo, *Emanuele Di Maria*, *Irene Mammarella*, *Ughetta Moscardino* and *Maja Roch*
Predicting Reading Comprehension Gains in Bilingual Minority Language and Monolingual Primary School Children
PRESENTER: *Raffaele Dicataldo*

ABSTRACT. This study examined predictors of reading comprehension (RC) gains in bilingual minority language children (BLMC) learning Italian and monolingual peers (7-10 years). BLMC showed lower vocabulary, decoding, and RC, but similar developmental patterns to monolinguals. Hierarchical regression revealed vocabulary and working memory as key predictors of RC gains, while decoding was not significant. Findings support the Simple View of Reading, emphasizing the importance of linguistic and cognitive skills in literacy interventions for diverse learners.

Lisa Pilotek, *Mohammad N. Karimi* and *Tobias Richter*
The Text-Belief Consistency Effect Exists in Bilingual Reading Settings
PRESENTER: *Lisa Pilotek*

ABSTRACT. Text-belief consistency effects, reflecting readers' better understanding of information aligned with their beliefs, have been established in both L1 and L2 reading contexts. Two experiments extended this effect to bilingual reading settings by examining Iranian and German students reading conflicting texts in their L1s and their L2 English. Across both samples, the

effect emerged consistently, regardless of the language. These findings highlight the robustness of belief-driven validation when reading in bilingual settings like the Internet.

Mariola Giménez-Salvador, *Ignacio Máñez* and *Raquel Cerdán*
The Text-Belief Consistency Effect Among Recent Upper Secondary Graduates: An Eye Tracking Study
PRESENTER: *Mariola Giménez-Salvador*

ABSTRACT. In the present study, recent upper secondary graduates read four texts on a controversial topic to examine their ability to overcome the text-belief consistency effect. Eye tracking assessed immediate and delayed text processing, while an essay task measured their mental representation. Results showed no significant differences in processing based on belief consistency, and essays reflected a balanced approach. While findings suggest they may overcome this effect, study limitations must be addressed before drawing firm conclusions.

Amanda Jensen, *Laura Allen* and *Panayiota Kendeou*
How Do We Read Parallel Texts? Insights By Examining Eye Movements
PRESENTER: *Amanda Jensen*

ABSTRACT. The purpose of this study is to establish a baseline understanding for how an adult reader navigates a parallel version of a narrative text. In Study 1, the original and simplified versions that make up the parallel text will be separated and tested. In Study 2, eye-tracking technology and a self-report measure will be used to determine the strategies adult readers use when reading a parallel text.

Anne Helder, *Dianne Venneker* and *Paul van den Broek*
The impact of topic interest on how children understand informational texts: An eye-tracking study
PRESENTER: *Anne Helder*

ABSTRACT. We examined how readers' topic interest influences text comprehension. Fifty-three elementary-school children rated their interest in twelve topics, then read and answered questions about texts on their three most-interesting and three least-interesting topics while eye movements were recorded during reading. Topic interest improved comprehension, particularly for deeper questions across all readers and superficial questions among less-skilled comprehenders. Less-skilled comprehenders spent more time on most-interesting than least-interesting texts, whereas skilled comprehenders showed no differences during reading.

Aisha Futura Tüchler, *Marieke Titzmann* and *Sascha Schroeder*

The Influence of Presentation Format on Reading Comprehension and Eye Movements in Young Readers

PRESENTER: *Aisha Futura Tüchler*

ABSTRACT. This contribution investigates how presentation format (paging vs. scrolling) in the digital medium influences reading comprehension, reading time, and eye movements in young readers. Additionally, general reading abilities were assessed and included in the analyses. While no differences in reading comprehension were found between conditions, reading times were longer in the scrolling condition. Implications for reading and learning from screens will be discussed.

Johanna Grimm and *Tobias Richter*

Enhancing University Students' Argument Evaluation Skills Through Rational Thinking Training

PRESENTER: *Johanna Grimm*

ABSTRACT. We investigated the transfer effects of a general rational thinking training on university students' ability to evaluate arguments using a pre-post between-subjects design (N = 149). Students showed comparable improvement in assessing the (im)plausibility of scientific arguments following the rational thinking training and a general reading strategy training. These findings extend both research on the trainability of argument evaluation and on the relationship between general rational thinking abilities and epistemic components of scientific literacy.

Giovanna Pignatelli, *Claudio Mulatti* and *Giovambattista Presti*

The Use of DRR-Based Training to Improve Reading Comprehension

PRESENTER: *Giovanna Pignatelli*

ABSTRACT. This study examines how, according to Relational Frame Theory (RFT), secondary school students' reading comprehension can be improved using Derived Relational Responding (DRR)-based interventions. We present preliminary data on text comprehension of two groups of Italian students who took part, respectively, in SMART Training (Strengthening Mental Abilities with Relational Training) compared with the Scratch active control group. Text comprehension was assessed pre- and post-intervention using INVALSI text excerpts.

Oriana Incognito, *Anna Paola Fallaci* and *Christian Tarchi*

Improving digital literacy: the impact of an integrated digital intervention for lower secondary school students
PRESENTER: *Anna Paola Fallaci*

ABSTRACT. The aim of this study is to validate the effectiveness of a digital intervention to improve sourcing and intertextual integration skills in a group of 144 lower secondary school students. The results of linear mixed models examined the effects of fixed factors (experimental condition) and random factors (class group) on the argumentative quality of an essay and the mention of reliable sources, confirming the effectiveness of the intervention.

Philipp L. Marten and *Marc Stadtler*
Teaching sourcing and corroboration skills to secondary school students: Which individual difference factors predict learning gains?
PRESENTER: *Philipp L. Marten*

ABSTRACT. This secondary analysis investigated the role of six cognitive, motivational, and social factors on students' learning gains from sourcing and corroboration training. Reanalysis of two intervention studies indicated that pretest skills predicted sourcing improvements, reading proficiency predicted success in researcher-led workshops, and SES predicted enhancements in teacher-led lesson series. Findings highlight the importance of understanding how individual differences shape training success. Such insights may guide the development of training programs tailored for diverse students' needs.

Andreas Schramm, *Michael C. Mensink* and *Anh Thu Tong*
Non-Prototypical Expressions for Time: The Semantics of Unbounded Imperfective Grammatical Aspect with Bounded Accomplishment Lexical Aspect
PRESENTER: *Andreas Schramm*

ABSTRACT. Little is known about semantic lexical and grammatical aspect contents understood in sentences during processing and then integrated into the mental model. Apparently, inherent boundedness plays a particularly important role. Using a truth value judgment task, we show that participants appear to truly understand the nonprototypical semantic meanings of lexical Accomplishments and grammatical Imperfectives rather than simply following distributional patterns. Semantic results will also be compared with a second experiment into related pragmatic aspectual differences.

Debora I. Burin, *Federico M. Gonzalez*, *Jonathan Marrujo*, *Magalí Martínez* and *Natalia Irrazabal*

Video comprehension in online learning: Effects of valenced images and working memory
PRESENTER: *Debora I. Burin*

ABSTRACT. The present study addressed the effects of negative and positive decorative images and the role of participants' working memory in online video comprehension, in an experimental e-learning setting. Online expository comprehension was similar in videos without images and with positive images, against both the seductive and the emotional design effects. However, negatively valenced images led to worse comprehension than positive ones. Working memory influenced comprehension, but did not moderate the effect of images' valence.

Sandrine Rome, *Tiphaine Colliot*, *Cécile van de Leemput* and *Franck Amadieu*
Exploring Mental Effort, Feeling of Disorientation, and Performance in a Children's Information Search Task: The Role of Medium and Maps
PRESENTER: *Tiphaine Colliot*

ABSTRACT. This study explored how the medium (paper vs. tablet) and map presence affected children's performance, mental effort, and feeling of disorientation during an information search task. Self-efficacy towards literacy was also measured. The map improved performance in the tablet condition but increased mental effort and hindered performance in the paper condition. Self-efficacy positively impacted performance and mental effort. These findings highlight the importance of considering medium and maps in educational task design for young children.

Alessandra Zagato, *Eleonora Pizzigallo*, *Gerardo Pellegrino*, *Agnese Capodieci*, *Barbara Carretti* and *Chiara Mirandola*
Performance vs. Accuracy: The Impact of Text Genre, Question Type and Educational Level on Calibration in Comprehension
PRESENTER: *Alessandra Zagato*

ABSTRACT. Metacognitive skills in text comprehension tasks are fundamental to students' learning and may vary depending on text genre question type, and educational level. This study examined calibration in 407 students through postdictive judgments and confidence ratings. Three metacognitive indices were calculated: Absolute Accuracy Index, Bias Index, and Discrimination Index. Results suggest that students' ability to assess their comprehension improves with age and academic experience. Insights for educational practices will be discussed.