BabyLM 2025

The First BabyLM Workshop: Accelerating Language Modeling Research with Cognitively Plausible Data

Proceedings of the Workshop

November 8, 2025

Order copies of this and other ACL proceedings from:

Association for Computational Linguistics (ACL)
317 Sidney Baker St. S
Suite 400 - 134
Kerrville, TX 78028
USA
Tel: +1-855-225-1962
acl@aclweb.org

ISBN TODO

Introduction

We are excited to welcome attendees to the First BabyLM Workshop! This follows two years of the BabyLM Challenge (now in its third iteration). The workshop will be co-located with the 2025 Conference on Empirical Methods in Natural Language Processing on November 8, 2025 in Suzhou, China.

This year, the program includes an oral session for the winning shared task papers, two oral sessions for the award-winning workshop papers, and a poster session for all accepted submissions. There is also an introductory presentation from the organizers summarizing the challenge, this year's winning submissions, and trends across submissions. In addition, we have two invited talks—one from a language modeling expert and another from a cognitive modeling expert.

We received 32 workshop submissions (many of which also included system submissions to the BabyLM Challenge) and 12 direct challenge submissions. We are grateful to the challenge participants, whether in the challenge or workshop tracks, for advancing the science of language modeling. The participants' efforts are essential to advancing the state of cognitively plausible and sample-efficient language modeling.

We also extend our thanks to the organizers of EMNLP for their significant efforts in sustaining a conference of its scale, and in providing an environment for the BabyLM community.

Finally, we thank our program committee members—largely sampled from the participants of the challenge—for committing their time to help us curate an excellent program.

—The BabyLM Organizing Committee: Lucas Charpentier, Leshem Choshen, Ryan Cotterell, Mustafa Omer Gul, Michael Y. Hu, Jing Liu, Jaap Jumelet, Tal Linzen, Aaron Mueller, Candace Ross, Raj Sanjay Shah, Alex Warstadt, Ethan Gotlieb Wilcox, Adina Williams

Organizing Committee

Program Chairs

Lucas Charpentier, University of Oslo
Leshem Choshen, Massachusetts Institute of Technology
Ryan Cotterell, ETH Zürich
Mustafa Omer Gul, Cornell University
Michael Y. Hu, New York University
Jing Liu, École Normale Supérieure - PSL
Jaap Jumelet, University of Groningen
Tal Linzen, New York University
Aaron Mueller, Boston University
Candace Ross, Meta AI
Raj Sanjay Shah, Georgia Tech
Alex Warstadt, UC San Diego
Ethan Wilcox, Georgetown University
Adina Williams, Meta AI

Program Committee

BabyLM Challenge Reviewers

Lisa Beinborn, Alessandro Bondielli

Luca Capone

Lukas Edman

Achille Fusco

Nalin Kumar

Mateusz Lango, Sharid Loáiciga

Francesca Padovani, Alexandros Potamianos

Asad B. Sayeed, Jun Suzuki

Joonas Tapaninaho

BabyLM Workshop Reviewers

Xuanda Chen

Justin DeBenedetto

Steven Y. Feng

Kata Gabor, Zebulon Goriely, Leon Guertler

Patrick Haller, Michael Y. Hu

Mayank Jobanputra

Marianne De Heer Kloots, Andrey Kutuzov

Mateusz Lango, Yukyung Lee, Jing Liu, Sharid Loáiciga

Bhavitvya Malik

Ercong Nie

Miyu Oba, Yohei Oseki

Omkar Pangarkar

Anthony Rios

David Samuel, Raj Sanjay Shah, Ekta Sood, Shikhar Srivastava, Julius Steuer, Michal Štefánik

Alex Warstadt

Han Yang

Li Zhou, Richard Zhu

Table of Contents

Program

Saturday, November 8, 2025

09:00 - 09:15 *Opening Remarks*

09:15 - 10:15 *BabyLM Challenge Orals*

CLASS-IT: Conversational and Lecture-Aligned Small-Scale Instruction Tuning for BabyLMs
Luca Capone, Alessandro Bondielli and Alessandro Lenci

Masked Diffusion Language Models with Frequency-Informed Training
Despoina Kosmopoulou, Efthymios Georgiou, Vaggelis Dorovatas, Georgios Paraskevopoulos and Alexandros Potamianos

MoEP: Modular Expert Paths for Sample-Efficient Language Modeling
Joonas Tapaninaho

Mask and You Shall Receive: Optimizing Masked Language Modeling For Pretraining BabyLMs
Lukas Edman and Alexander Fraser

Once Upon a Time: Interactive Learning for Storytelling with Small Language Models
Jonas Mayer Martins, Ali Hamza Bashir, Muhammad Rehan Khalid and Lisa Beinborn

10:15 - 11:00 *Break*

11:00 - 12:00 *Invited Talk 1*

12:00 - 14:00 *Lunch*

14:00 - 15:30 *Poster Session*

15:30 - 16:00 *Break*

16:00 - 17:00 *Invited Talk 2*

17:00 - 17:35 *BabyLM Workshop Orals*

Teacher Demonstrations in a BabyLM's Zone of Proximal Development for Contingent Multi-Turn Interaction
Suchir Salhan, Hongyi gu, Donya Rooein, Diana Galvan-Sosa, Gabrielle Gaudeau, Andrew Caines, Zheng Yuan and Paula Buttery

Are BabyLMs Deaf to Gricean Maxims? A Pragmatic Evaluation of Sample-efficient Language Models
Raha Askari, Sina Zarrieß, Özge Alacam and Judith Sieker

Looking to Learn: Token-wise Dynamic Gating for Low-Resource Vision-Language Modelling
Bianca-Mihaela Ganescu, Suchir Salhan, Andrew Caines and Paula Buttery

17:35 - 17:45 *Awards and Closing Remarks*