

Nobel Prize Teacher Summit 2024

Welcome!

Erika Lanner, CEO and Director of the Nobel Prize Museum welcomed us to the Summit.



Minding the Brain

The Nobel Prize Museum team presented the programme and the theme for the day.

Gustav Källstrand Chief Program Editor

Sara Engkvist
Museum Educator

Carin Klaesson
Content Manager of Public Programs

Pontus Thunblad
Deputy Director of Education





Emotional Learning

Can our feelings change what we remember – and what consequences does that have for learning?

In this interview, with Gustav Källstrand, Armita Golkar talked about how to better understand the connections between emotions and learning.

Armita Golkar is Associate Professor of Psychology at Stockholm University.



A Look Inside the Brain of Teenagers

How does neural activity flow between brain areas when teenagers learn computer programming?

Sara Bengtsson presented a recent neuroimaging study based on Embodiment theories, focusing on the role of motor actions in learning.

Sara Bengtson is Associate Professor in Psychology at University of East Anglia.



A Generous Mind

Are scientists competitive and closed off from society?
Not according to David MacMillan.

According to him, doing science is a way to help the world – and the key to success is being generous with your ideas.

Chemistry laureate David MacMillan talked about his passion for chemistry and education.



Why Learning and Instruction Should Be Based on Science, Not on Research

Agneta Gulz discussed the difference between using science versus using research as a basis for real-world decisions about educational approaches.

Agneta Gulz is Professor of Cognitive Science at Lund University.



Specialising and the Art of Blending

What do we need to become good at something?

Lars Strannegård and Carin Klaesson discussed what stimulates learning. Is streamlining the best way or should education provide a mixture of disciplines even when the students are specialising?

Lars Strannegård is President of Stockholm School of Economics.





Breakout sessions 1





Nobel Prize laureate David MacMillan is passionate about education. In this talk, he shared the profound impact teachers had on him leading up to the discoveries behind the 2021 Nobel Prize in Chemistry, and how his own students helped him develop asymmetric organocatalysis, the technology for which he won the prize.



Implicit Biases

Students are surrounded by written and spoken words in the classroom, at home and on social media.

In this workshop, the participants looked at how cues in the environment can influence us without our immediate awareness, and discussed how to enhance or reduce these influences by looking at Empowerment theories and "Ego-involvement" models.



Uncovering the Science of the Classroom: What Works and Why?

BJÖRN SJÖDÉN

This workshop examined how various classroom practices are – or are not – based on the science of learning. The aim was to clarify not only what works, but also why it works.

Björn Sjödén is Assistant Professor in Educational Science at Halmstad University.



Understanding the Adolescent Brain: Navigating Growth, Challenges and Opportunities ARMITA GOLKAR

In this talk, Armita Golkar provided an overview of the neurological changes that occur in the adolescent brain and how these affect behaviour, decision making and emotions.

Artificial Curiosity?

To learn things, children need to explore and be curious about the world. Can the same be true for machines?

Amy Loutfi talked about her work on curiosity-driven learning and empathy in AI to provide insights on how intelligent systems could either complement or challenge our mental capacities.

Amy Loutfi is Professor of Computer Science towards AI and Robotics at Örebro University.



Learning and Well-Being

Humans are born to learn, but learning is a complex, dynamic process.

John H. Falk is a learning researcher and biologist. In his lecture, he discussed how well-being, viewed as an ancient and fundamental capacity of life, is both a prerequisite for and an outcome of successful learning experiences.



Breakout sessions 2









The Art of Memory and its Application in Schools

MARTIN NILSSON

Martin Nilsson shared his insights on how memory techniques can revolutionise teaching and learning.

He showed how these techniques can be used to enhance students' ability to remember, understand and apply knowledge in an effective and engaging way.

Embodied Al

AMY LOUTFI

Could AI sense and interact with the world around it like humans do? This breakout explored how giving AI a physical presence enhances its learning capabilities through real-world experiences.

The session also included practical demonstrations of how the technology is applied in robotics, automation and digital environments.

A Well-Being-Centred Approach to Education

JOHN FALK

In this session, Falk introduced ten Well-Being-Centred Principles for quality educational experiences. The participants explored the nature of well-being and its relationship to learning, and discussed strategies to apply these principles in their own contexts.

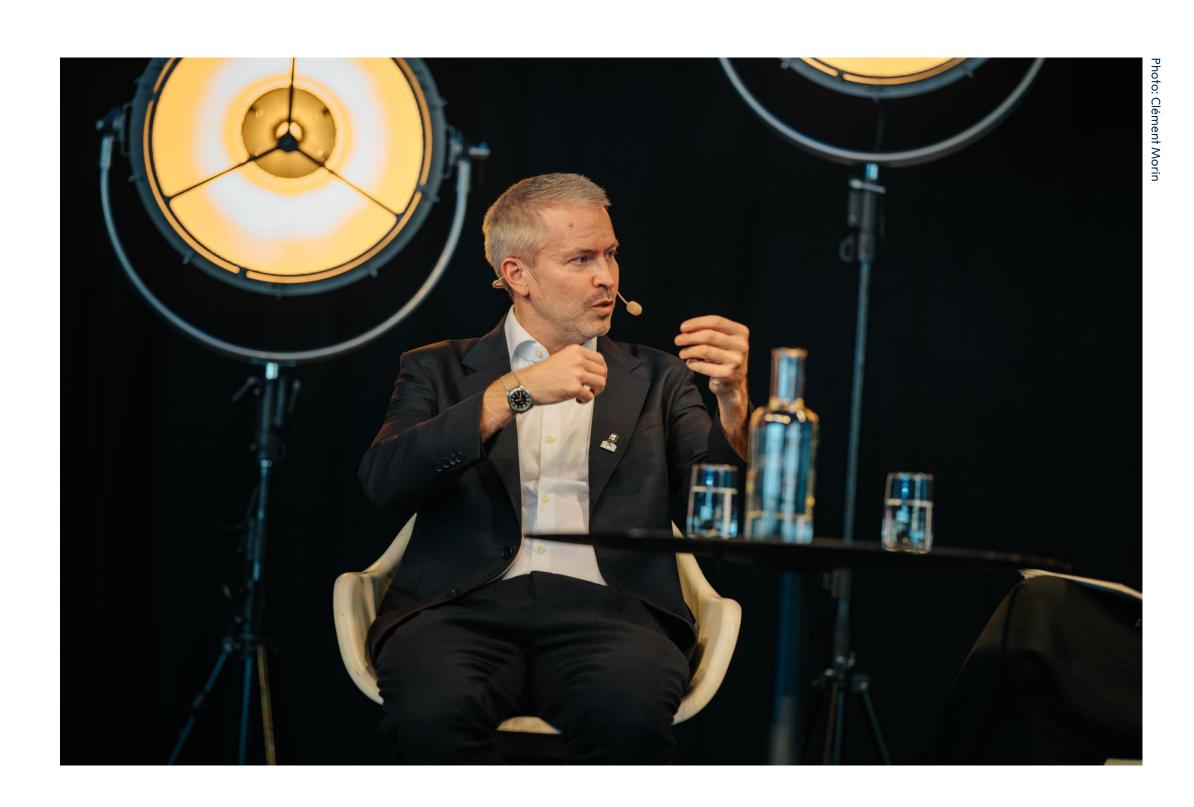
Teacher-Student Relationships and Learning: Focus on Neurodevelopmental Disorders LINDA PLANTIN EWE

In this breakout session, Ewe discussed the dynamics between teachers and students with neurodevelopmental disorders, highlighting how these relationships affect students' emotional well-being and academic success, and providing strategies for creating supportive, inclusive environments.

How Can We Be So Smart and Still Act So Stupid?

We are creative and sometimes even brilliant. Yet we fight wars and destroy the planet we live on.

Björn Hedensjö reflected on the complexity of the human mind and the possibility to predict our behaviour.



Understand the Past and Foresee the Future

How can we develop and reach atonement if there is a systemised falsification of history?

Dr Elena Zhemkova is one of the founders of Memorial, the human rights organisation, founded in the late 1980s to study violations during the Soviet era.

Memorial received the Nobel Peace Price 2022 together with the Ukrainian organisation Center for Civil Liberties and the imprisoned Belarusian human rights advocate Ales Bialiatski.







