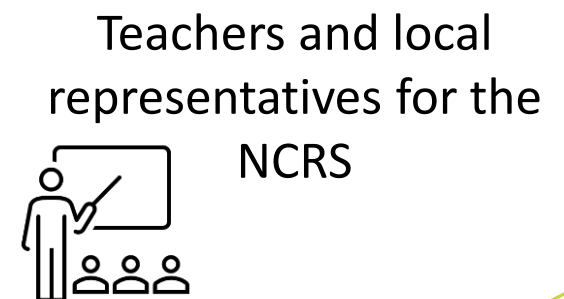


**ETES 2023**

**Children, attention and cycling  
- the road from reasearch to practice**

# Children, attention and cycling

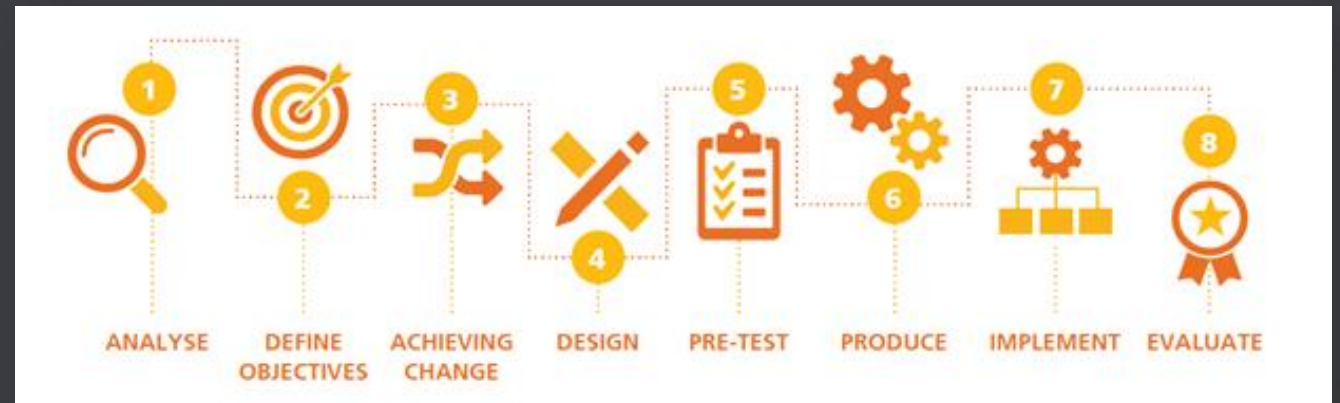


# LEARN!

We have presented the studies made by SINEF earlier.

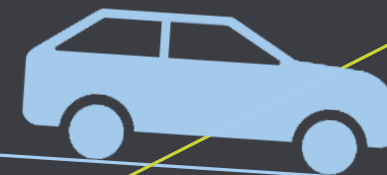
We've used the LEARN! manual stages in the development of new teaching resources.

After pre-testing our last draft we had to let go of the idea and jump back to step 4.

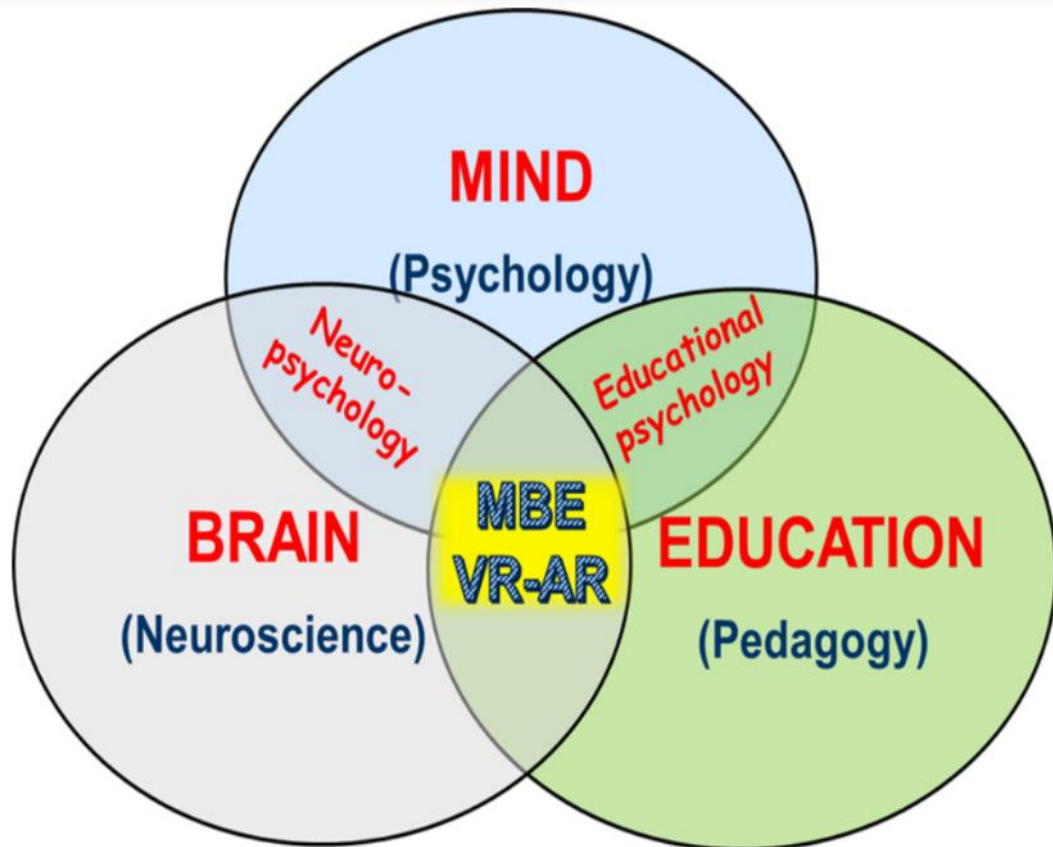


The objectives of the training model address the following aspects:

- The ability to observe in the traffic environment
- Distributed attention
- Assessment of risk factors
- Speed adjustment



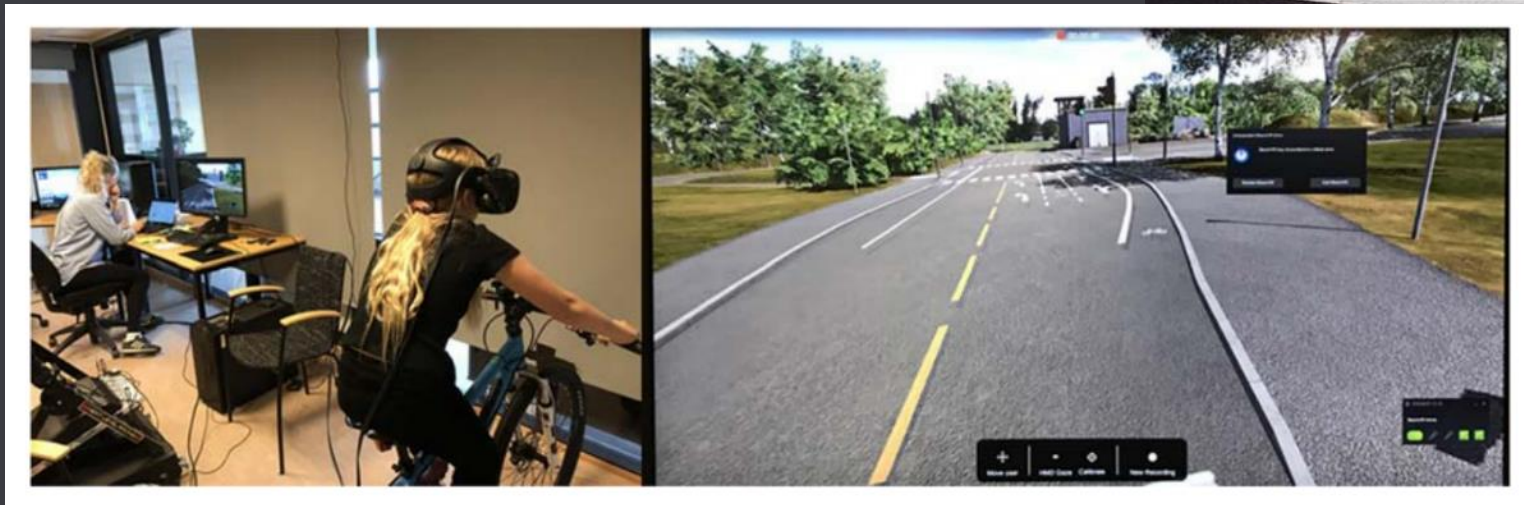
# Neuro-Education



The Norwegian Council for road safety, Trygg Trafikk with SINTEF and Nord University developed a new road safety education program based on the last findings in Neuro-Education.

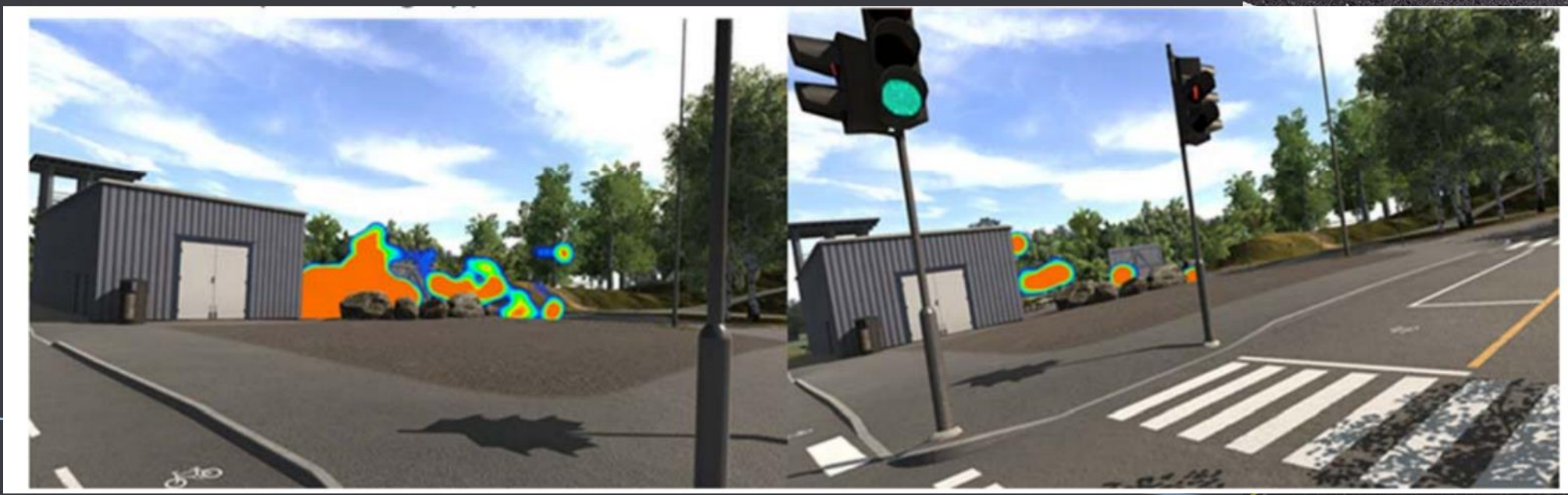
Whereas traffic rules are essential and part of the school road safety education program, learning how to properly use attention in complex traffic situations was never taught before.

# Heatmaps and areas of interest



AOI 3 Experimentgroup

AOI 3 Controlgroup



” The aim of the project is to give teachers the necessary knowledge and skills to carry out attention training on bicycles.

The teachers' training should be able to influence the pupils so that we see changes in observable behavior in selected risk situations in traffic.

# Children, attention and cycling

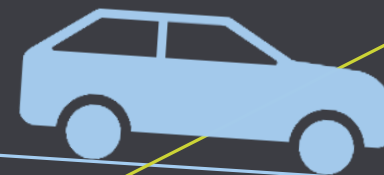
Teacher training

Teaching resources – attention training

Bicycle trail

Digital trail

Physical trail

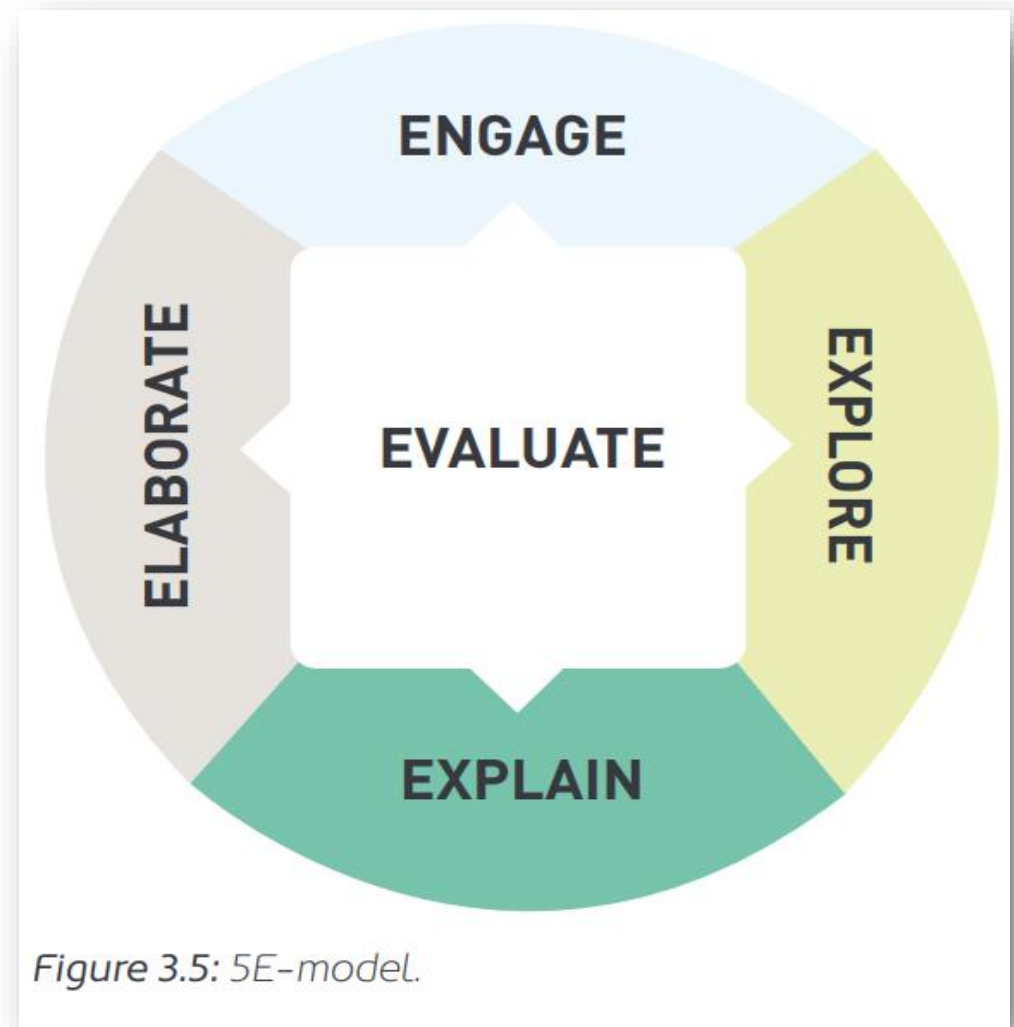


# 5E - model

Why change the traditional way of teaching how to use bicycles in school?

Help pupils to start planning their tasks early, and pay high attention in every situation in traffic.

This is also a good method to improve students ability to solve school tasks in general.





# Engage

## Teaching resources:

- In the classroom
- Teacher and pupils do it together
- The teacher is guiding the pupils, and they are finding out what they need to know to ride their bike in traffic



**Keywords:** motivate and create a need for learning



attention training

# Explore

## How to do bicycle trail in school:

- Use a digital map
- Talk about the local environment (the pupil's own experiences with risk and safety)
- Choose a route together, using the map
- This is the basis of the attention training!
- Walk the route
- Bicycle the route



**Keyword:** investigate, take decisions, collect information, pose questions

# Explain

## The method:

1. Teaching training
2. Teaching recourses
3. Bicycle trail

## It is important in the lesson that the pupil:

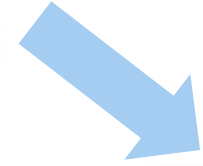
- can formulate and make their own explanations on how and why
- can reflect on the input of others

**How:** Talk about and solve digital tasks, talk together about example movies, and finally test their abilities on a bike trail around the school.



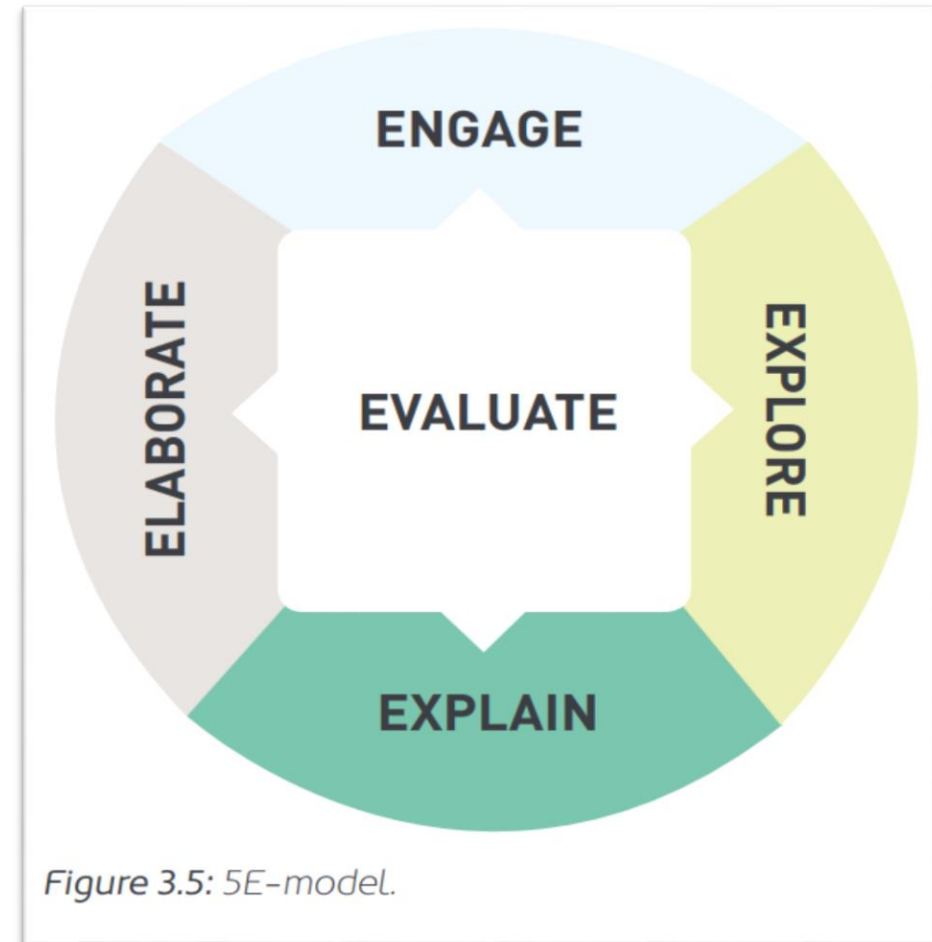
# Elaborate

- Develop a deeper and broader understanding than what the pupil had previously
- Apply new knowledge and skills in new contexts. We believe this is possible with attention training in the classroom and with a local bike trail



# Evaluate

- The pupil's learning outcomes are evaluated with a practical biketrip at the end.
- The **most importantly** the pupils do a lot of self and pair assessments throughout the whole learning period.
- Keyword: prediction and planning



# Evaluate

- We are finalising the evaluation plan, and determining the design of the learning activities together with the professors at Nord University and SINTEF.
- We have produced a roadmap for production, pre-testing and implementation.



**Transfer value:** Pupils strengthen their ability to predict in school subjects. Developing this ability at this age makes it a permanent skill (MBE – SINTEF). We are using the result from the attention training as a guideline when we develop and evaluate our other pedagogical resources.



**TRYGG TRAFIKK**

# Resources

- Key Principles:  
<https://www.trafficsafetyeducation.eu/wp-content/uploads/LEARN-Key-Principles.pdf>
- 5E - model:  
[https://www.sicurstrada.it/Risorse/The%20Norwegian%20Council%20for%20Road%20Safety\\_s.pdf](https://www.sicurstrada.it/Risorse/The%20Norwegian%20Council%20for%20Road%20Safety_s.pdf)
- Finance Norway:  
<https://www.finansnorge.no/om-finansnorge/about-finance-norway/>
- Rapport BOS:  
<https://sintef.brage.unit.no/sintef-xmlui/handle/11250/2839061>
- Strategi på engelsk: [Trygg Trafikk - TT Strategy 2022–2030.pdf - Alle dokumenter \(sharepoint.com\)](#)
- National action plan for road safety:  
<http://tinyurl.com/5fr89nt6>
- Lena Westrum [westrum@tryggtrafikk.no](mailto:westrum@tryggtrafikk.no)
- Tone H. Glomsrud [glomsrud@tryggtrafikk.no](mailto:glomsrud@tryggtrafikk.no)
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