

A Holistic Pedagogical Model for STEM education in schools



by Christian M. Stracke et al.

Open University of the Netherlands

@ 6th International LINQ Conference

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**Advisory Professor for E-Learning
East China Normal University**



**Founder & Director of eLC, the European
Institute for Learning, Innovation & Cooperation**





My experiences

**> 20 years E-Learning
in business & academia**



**Research Institute leadership
and strategic development**



**> 20 years design, realization, evaluation &
optimization of study programs and courses**



**100+ International Projects: with > € 50 Mio.
budgets and > € 4.8 Mio. own funding**





My interests

**Innovative Open Education
in Schools & Higher Education**



**Media Literacy, Self-Reflection and
Critical Thinking as Key Competences**



**Learning Design for Online
Collaboration & Personalization**



Global initiative ICORE for OR & OE



International LINQ Conference



**How can
we improve
STEM education?**

We are

Learn

STEM



Learn STEM network



EEKHOUT
- ACADEMY -



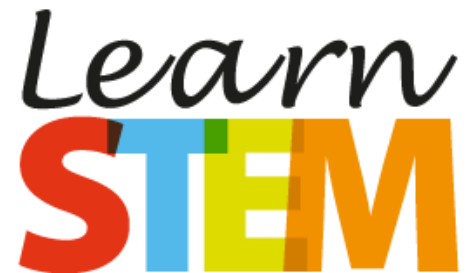
www.learn-STEM.org

Learn
STEM

Learn STEM objective

**We want to improve
STEM education
in schools!**

www.learn-STEM.org

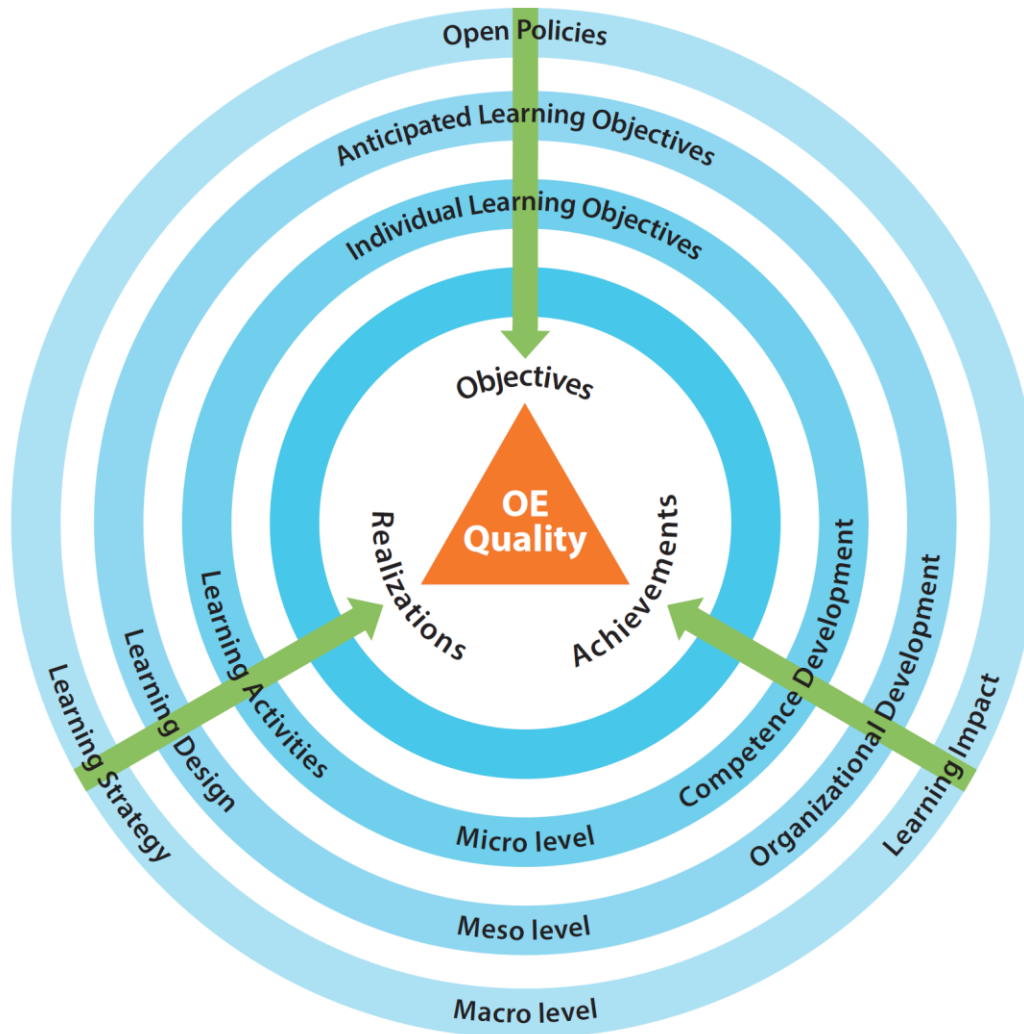


What is Open Education?



Source: <https://www.flickr.com/photos/opensourceway/>

OpenEd Framework



Explorative Pedagogies

The four phases of Oh, DEAR!

Teacher cycle



Learner cycle



What is Open School Education?

Open School Education

www.Learn-STEM.org



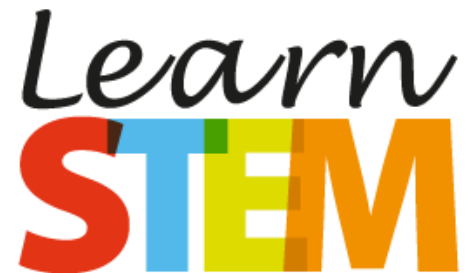
What is *Learn* **STEM**

Open STEM Learning

Learn STEM for school innovations:

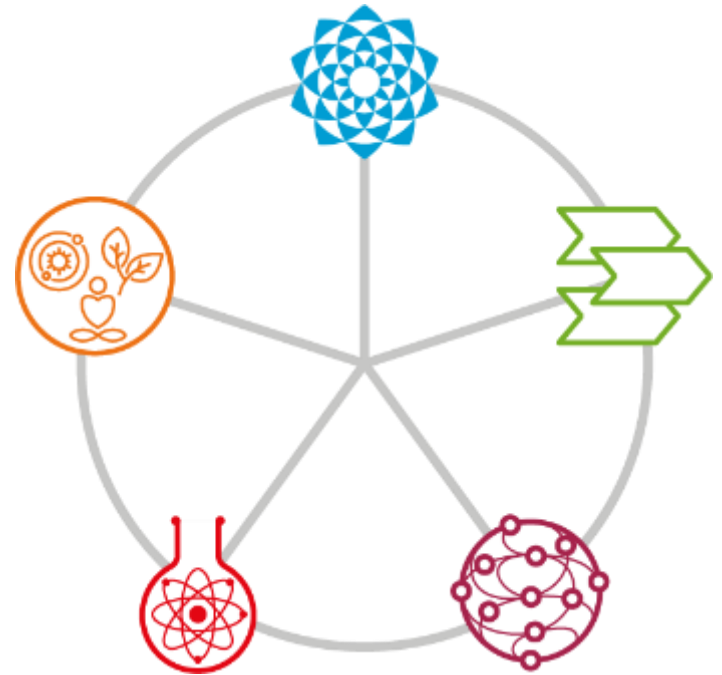
- **Pedagogical Model for Open STEM**
- **Innovative open tools and resources**
- **Teacher training and OER materials**

www.learn-STEM.org



Pedagogical Model

COMPLEX
PROCESS-ORIENTED
HOLISTIC
PRACTICAL
SOCIAL



Free & open download:
www.learn-STEM.org/Model



Learn
STEM

Learn STEM for you

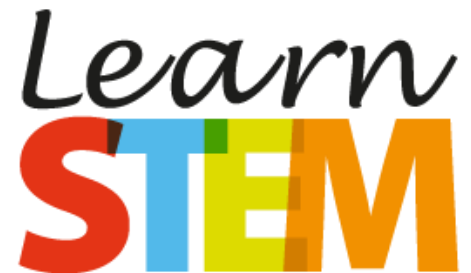
Results from Mixed Methods research:

- **Pedagogical Model**
- **Teacher Training Programme**
- **Open Online Course (March 2020)**



Free to use & to adapt!

www.learn-STEM.org



Learn STEM events

**LINQ 2019 Conference in Roermond
22nd of November 2019**



Our Workshop today:

www.learning-innovations.eu

www.learn-STEM.org

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Learn STEM events

Learn STEM Conference in Roermond

Thursday, 26th of March 2020

Join us!

www.learn-STEM.org

Learn
STEM

**We need
Change
in Education!**

**We need
Open
Quality Education!**

**We need
Open
Quality Education!
... with fun!**

Open Education is a **Vision
that is happening!**

****Quality** is most important
for our situation & learners**

**Inclusion and equity for all
to improve our **Global Society**!**

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Let us cooperate!



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