



Universität Regensburg

Activities of the South-German Talent Center

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Activities of the South-German Talent Center (SGTC)



Local activities

Identification and education of gifted students



Cooperation with European institutions

- Teacher training offerings
- School development
- Research



Europe-wide talent support

E-Mentoring in STEM

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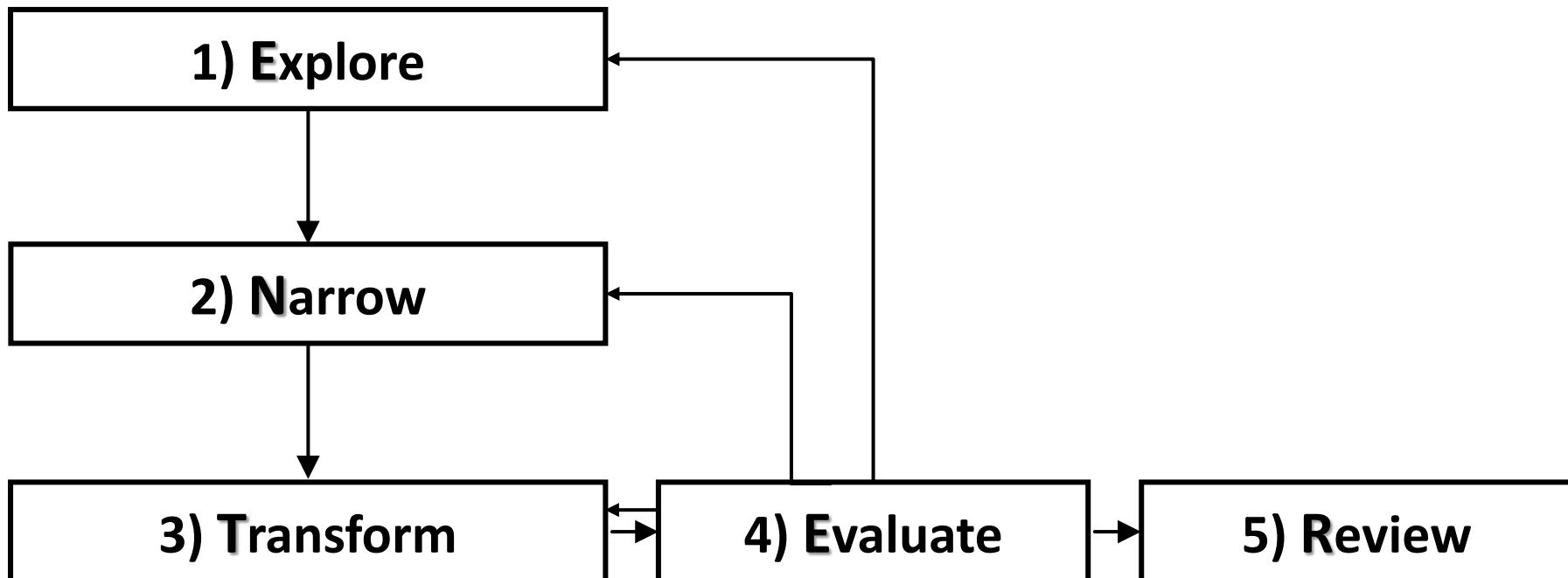
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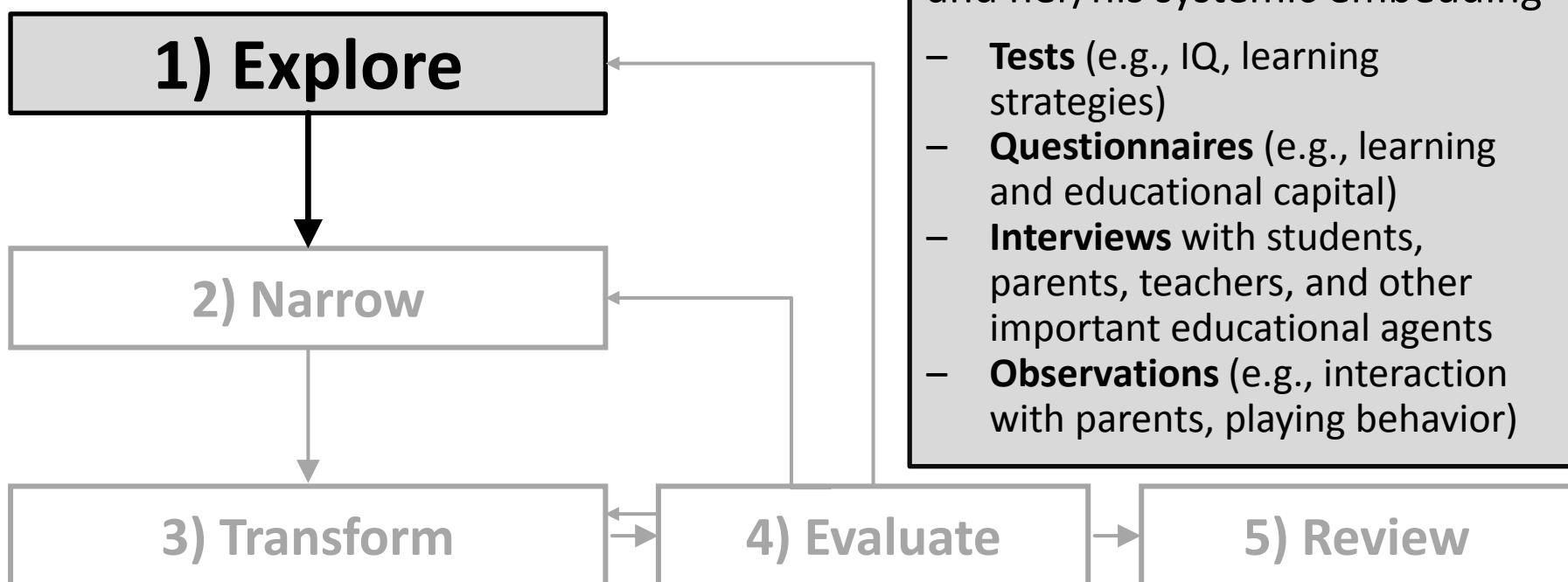
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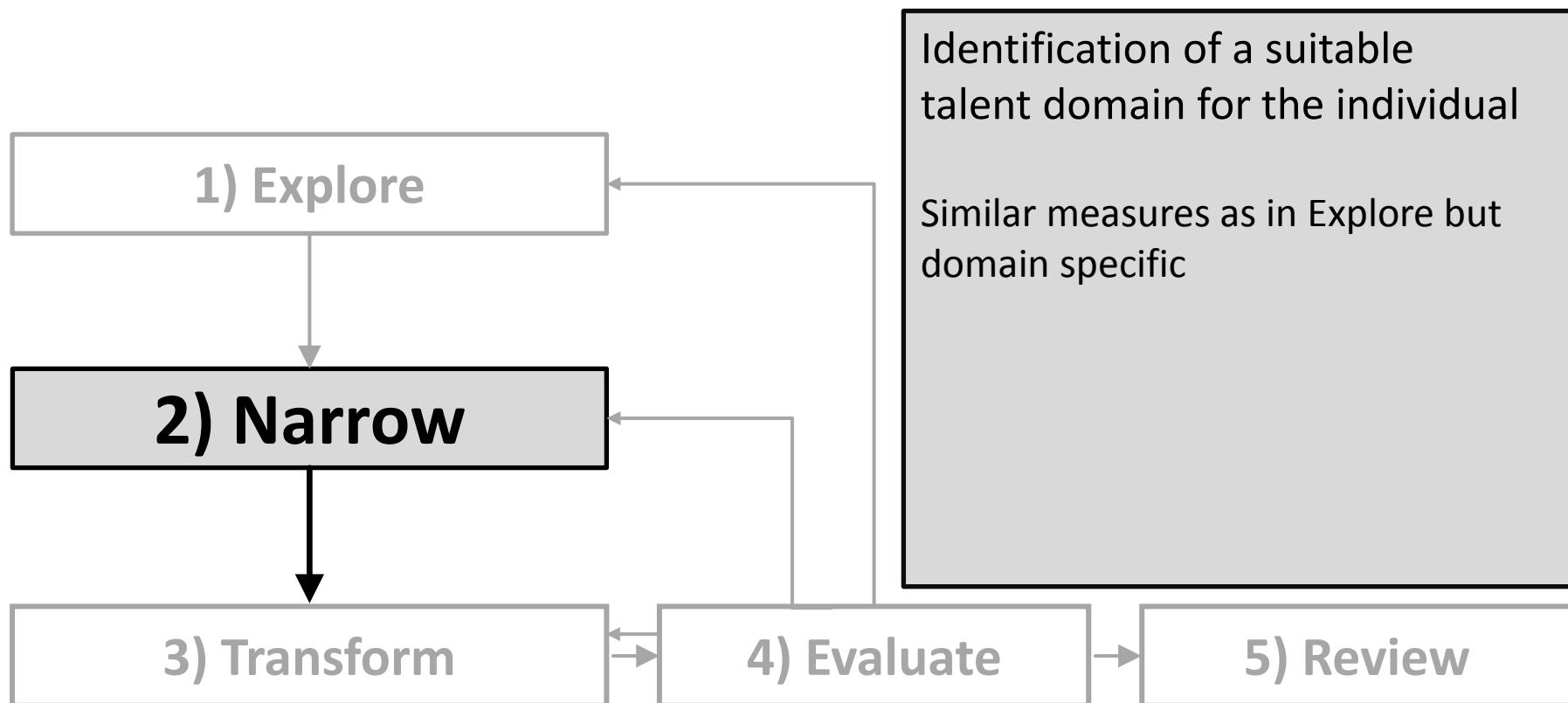
Identification and Education of Gifted Students with ENTER



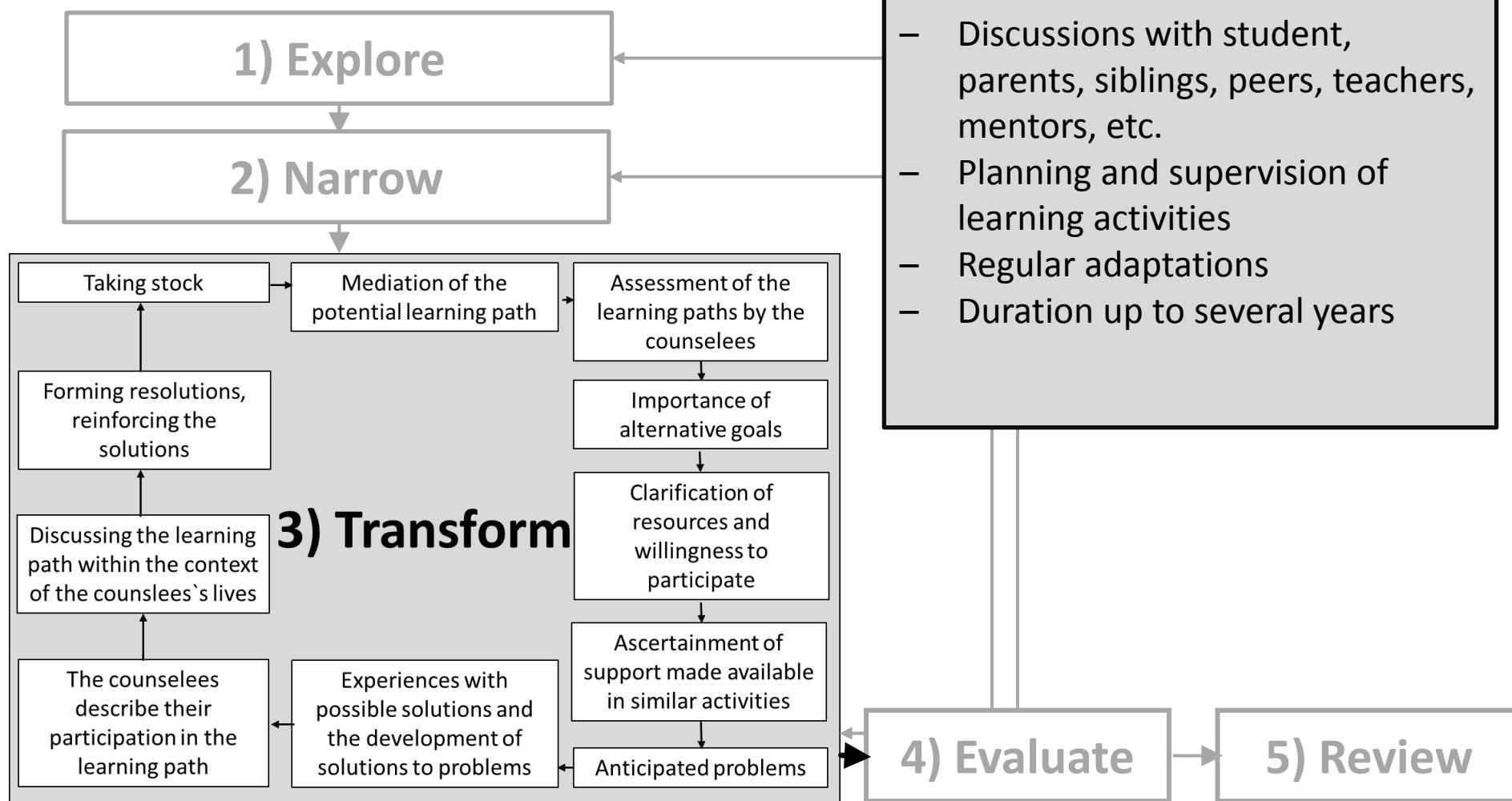
Identification and Education of Gifted Students



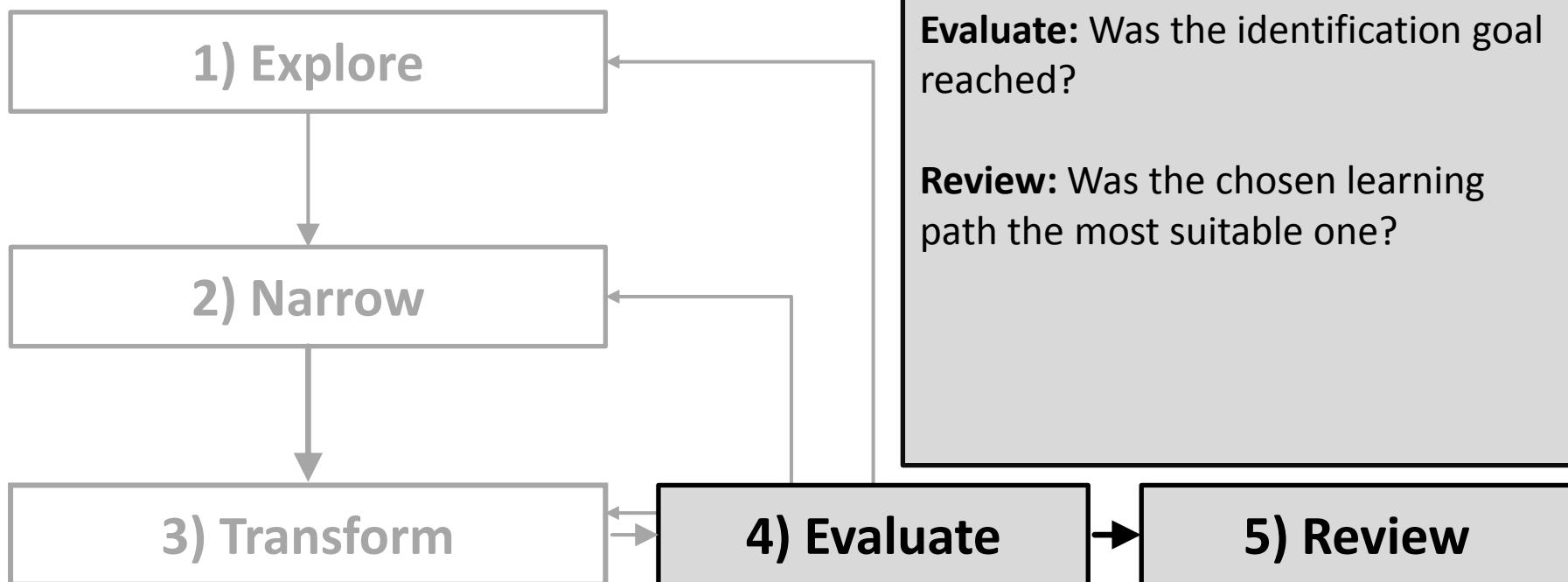
Identification and Education of Gifted Students



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Teacher Training

Example: Training programs for teachers that enable them to teach self-regulated learning and learning strategies to their primary school students in regular classroom contexts—in a way that also enables gifted students to improve their learning behavior



Teacher Training—An Example

Professional development seminars for teachers (2–3 days)

Topic: How to implement highly effective training programs for primary school students

Goal: Preparing teachers to effectively implement training in their own classrooms

- Daily in-class training programs for elementary school students
- Duration of seven weeks
- Combined training in, e.g. ...
 - Learning strategies (e.g., time management, text-reduction strategies),
 - Metacognitive strategies (e.g., goal setting, planning), and
 - Learning contents (e.g., math tasks, science texts)

What's special: The SGTC doesn't just provide the initial teacher training. It also accompanies and evaluates the subsequent in-class student training.

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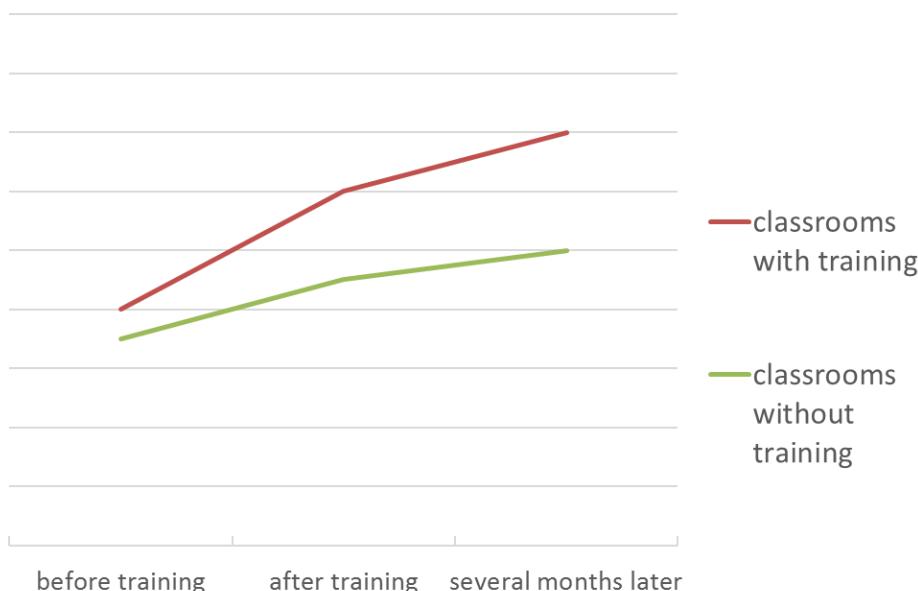
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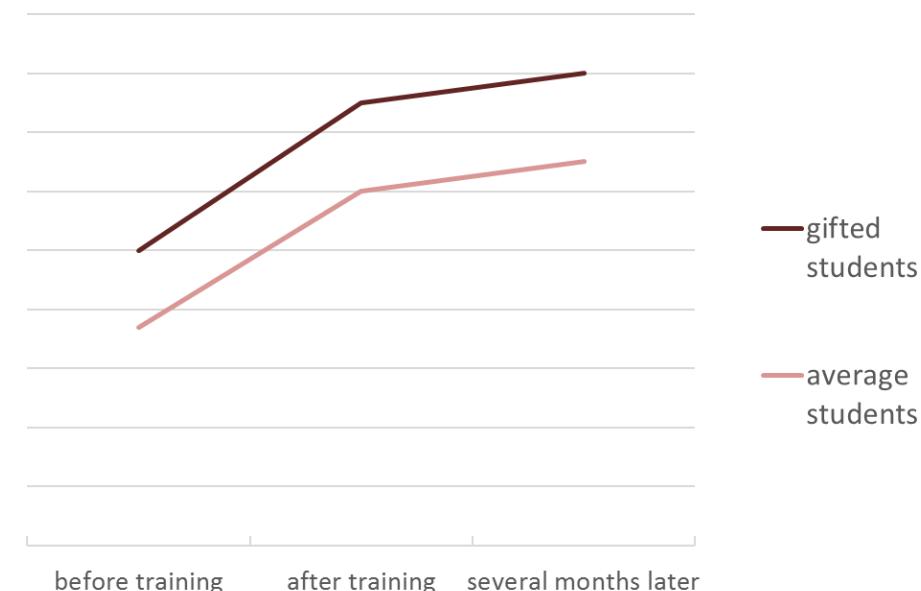
Europe-wide talent support

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General effectiveness of training programs



Comparable effectiveness for gifted and average students



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E-Mentoring in STEM

E-Mentoring in STEM



Katrin

- Twelve years old
- In 6th grade
- Very interested in microbiology

Katrin's Questions in an Online STEM Forum ...

Hi Everybody! Check this out ...

"A little-noticed, paradoxical effect of *Penicillin G* on *Enterococcus* (the eagle effect) was reported in 1948. Working with modern methods, researchers were able to show that high concentrations of *Penicillin G* led to a much weaker neutralization of *Enterococcus* than did concentrations that were only slightly above the minimal inhibitory concentration. A similar, yet stronger effect has been reported for *Ampicillin*. The effect cannot be observed for *Cefaloridin*, however" (www.thieme-connect.com).

As the eagle effect occurs during a monotherapy, combining *Penicillin* with an aminoglycoside can prevent the effect. Indeed, the combination is used to avoid an endocarditis therapy failure (e.g., during an inflammation of the inner layer of the heart).

This really makes me wonder: What is the cause of this effect? If you look at the dose–effect reaction of the bactericide for *E. coli*, *K. pneumoniae*, and *Staphylococcus aureus*, you do not find evidence of a paradoxical bactericide effect. In a 2004 dissertation (probably outdated), you find the following remark about the eagle effect: "Almost 60 years later, the causes of this phenomenon are still unknown ..."



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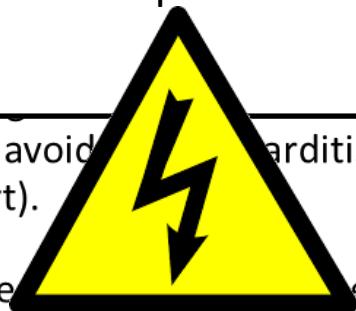
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Grade-6 Biology Curriculum

- Structure and appearances of flowering plants
 - Parts that make up a plant
 - How flowering plants reproduce
 - Growth and energy storage
 - Selected plant families
- Vertebrates in various habitats
 - Fish, amphibians, reptiles, birds
 - Relationships between vertebrates



At Present: Participants in Germany

Mentees:

800 students per year from high-achiever tracks



Mentors:

800 mentors form the STEM field



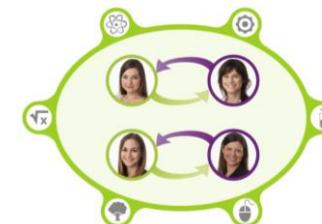
E-Mentoring in STEM

**1-on-1 mentoring
with a personal mentor**



Communication via chat, forum, and e-mail

**Networking in 4-person communities
consisting of 2 mentoring pairs**

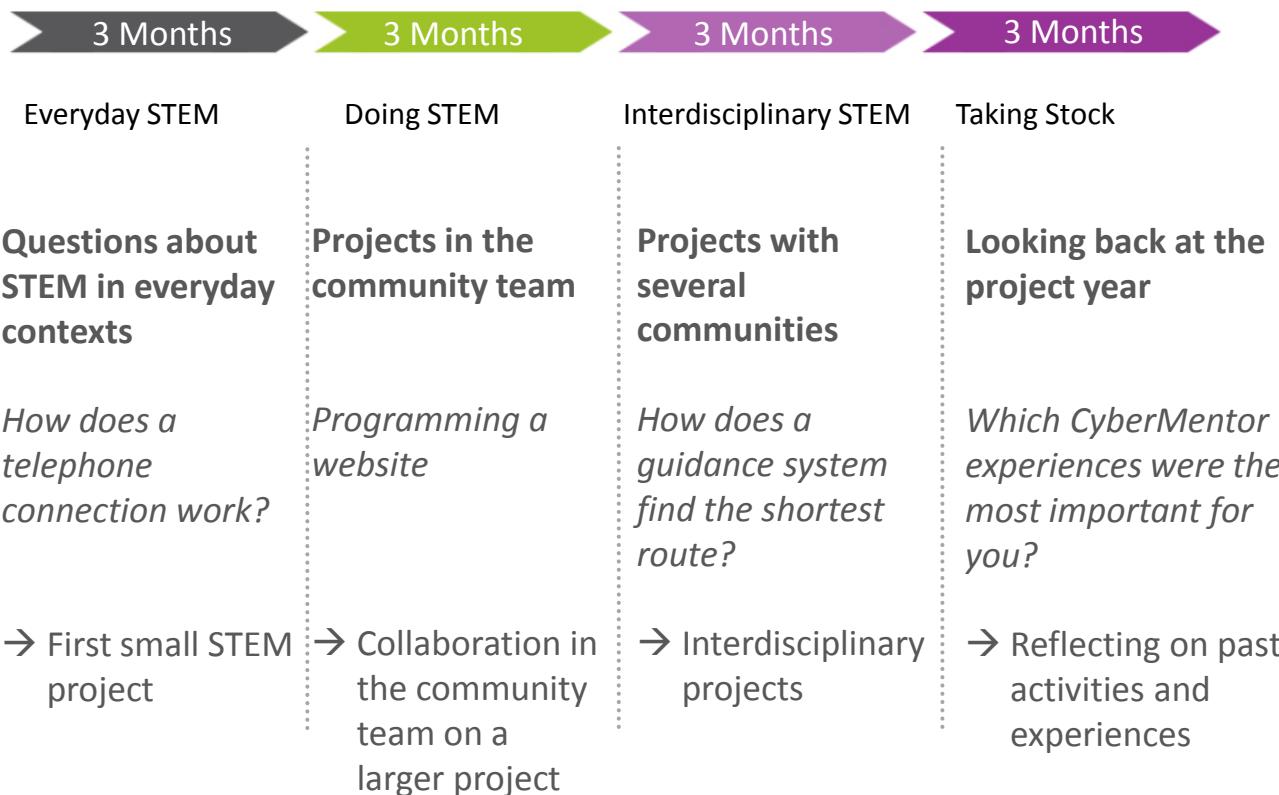


**Networking with all participants
on the online platform**



E-Mentoring in STEM

STEM-Project-Phases



The Future: Horizon2020



Please let us know if you are interested in participating:
daniel-patrick.balestrini@ur.de