



Enhancing Learning In Teaching via e-inquiries

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# Briefing Documents

on/for educational research



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## WHAT IS ELITE?

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ELITE is a 3-year project co-funded by the Erasmus+ programme of the European Commission. The acronym stands for *Enhancing Learning In Teaching via e-inquiries*.

ELITE is concerned with supporting STEM teachers' **development of knowledge, skills and attitudes** so that they can effectively address their roles as **lifelong learners, facilitators of students' learning and members of educational communities**. The project adopts the **inquiry-based learning (IBL) methodology** in professional learning activities as a means to facilitate STEM teachers' inquiry and reflective practice.

ELITE aims to on the one hand **highlight the links between inquiry skills practicing and STEM teachers' competence development**, and on the other to **inform curriculum development** in STEM teachers' education.

## TABLE OF CONTENT

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- ✚ Insights on the space for intervention for supporting STEM teachers' competence development
  
- ✚ Supporting STEM teachers' professional learning for competence development on working with parents
  
- ✚ Evaluating the impact of initiatives on STEM teachers' competence development – Outcome indicators
  
- ✚ Process indicators for inquiry-skills development

## OUTLINE

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### **Space for intervention for supporting STEM teachers' competence development**

#### Insights

The document provides insights on the space of intervention for supporting STEM teachers' professional learning for competence development in the educational contexts of Greece, the Netherlands, Bulgaria and Spain. Outlined are: systemic opportunities and challenges for supporting STEM teachers' professional learning for competence development in the countries; critical factors that affect STEM teachers' professional learning for competence development in the countries; recommendations for taking advantage of the opportunities, and addressing the challenges towards ensuring STEM teachers capacity building. The results aim to be a basis which education stakeholders can reflect on, and consider how to support more effectively STEM teachers' professional learning for competence development in the countries.

**Key concepts:** Requirements for STEM teachers' competence development in each of the national contexts of GR, NL, BG, ES; critical factors that affect STEM teachers' professional learning; Policy recommendations towards supporting STEM teachers' professional learning for competence development

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### **Supporting STEM teachers' professional learning for competence development**

#### Working with parents

This document reflects on the state of play on STEM teachers' competence development in four very different European countries – namely Greece, the Netherlands, Bulgaria and Spain – from the parents' perspective. The aim was to draft an ideal scenario and highlight areas to tackle on macro-, meso- and micro-systemic levels for development of STEM teaching, most of which not traditional, subject-specific areas, and to offer a starting point for training development on/for parental engagement.

**Key concepts:** Parental engagement & STEM teacher training; recommendations for STEM teacher training from the parents' perspective

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## **Evaluating the initiatives' impact on STEM teachers' competence development**

### Outcome indicators

This document introduces indicators (and sub-indicators) for evaluating the impact of initiatives on STEM teachers' competence development within the national framework of Greece, the Netherlands, Bulgaria and Spain. Both indicators and sub-indicators are based on EC (2013) framework for teachers' competence development. The document "Policy envisions and requirements for STEM teachers' competence development: the case of Greece, Netherlands, Bulgaria and Spain" provided the information relating each national context. Every sub-indicator is either relevant as national policy document and curricula for STEM teachers' training (explicitly), or as STEM students' curricula (implicitly).

**Key concepts:** Outcome indicators; STEM teachers' competence development

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### **Process indicators for inquiry-skills development**

This document aims to provide information and context to facilitate the interpretation of outcome indicators through the so-called process indicators. Their goal is to act as an evaluation tool to indicate whether an IBL skill and competence has been practiced by learners when performing IBL activities.

**Key concepts:** Process indicators; IBL-skills development