



**Dr. Mario Piacentini**

Senior Analyst/Project Manager  
Early Childhood and Schools  
Directorate for Education and Skills

2, rue André Pascal 75775 Paris, France  
Paris, 14 January 2022

**Subject:** Help develop a new formative assessment tool for secondary education

Dear Teachers,

I would like to invite you to take part in a new project initiated by the Organisation for Economic Co-operation and Development (OECD) in collaboration with several researchers and schools around the world. This project aims to develop a free tool, the [Platform for Innovative Learning Assessments](#) (PILA), that teachers can use to support and evaluate their students' development of 21<sup>st</sup> century competences. We believe that PILA can only be effective if it is co-constructed with teachers, and refined using evidence from pilot studies with students from different cultural contexts. This is the reason why we are asking secondary level computer science and mathematics teachers in the Netherlands to participate in the **first PILA pilot study**.

***What is PILA?***

PILA will provide a rich set of digital learning tasks designed by experts and organised in modules, each module targeting an important competence for the 21<sup>st</sup> Century. Teachers will select appropriate tasks for their students' level, and create assignments for them to solve during class time or as part of their homework. Teachers will also be able to develop their own digital tasks using accessible customisation tools. As students complete the tasks, digital dashboards generated by the system will provide teachers with real-time, visual summaries of their students' strengths and weaknesses. The dashboards will include information on the type of problems students are able to solve, and also on how they use resources in the digital environment, whether they persist after a failure, and other indicators of learning skills. The PILA initiative aims to demonstrate how technology can be used to support personalised learning, and contribute to bridge the gap between learning and assessment.

The first PILA module, and the focus of this pilot study, aims to measure computational problem solving (CPS), the iterative process of developing solutions to problems that can be executed by computers. It uses a visual programming interface that allows students to instruct a robot in the form of a turtle ("Karel"). The primary users of this module will be computer science and mathematics teachers, and the material is appropriate both for students with some experience in programming and for students who have never programmed.

***What does your participation entail?***

If you are a computer science or mathematics teacher in lower/upper secondary school and you decide to join the pilot, we will ask you to give us guidance on how to make the PILA platform more accessible to teachers and help us improve the tasks of the first PILA module on computational problem solving. Your students will have to complete short assessment experiences, and their responses will be analysed by the PILA experts. The following table provides an overview of the core activities and tentative timeline of the pilot study in the Netherlands:



What?	When?	How long?
<b>Introductory teacher workshop</b>	March/April 2022	1 session of 2 hours
<b>Student pilot study</b>	April/May 2022	3 sessions of 40-50 minutes each
<b>Follow-up teacher workshop</b>	June 2022	1 session of 2 hours

***How is this pilot study valuable for you and your students?***

First, your students will undertake engaging and research-based learning experiences. Second, you will gain useful insights from our experts into how to use technology for formative assessment. Third, you will join a vibrant network of educators, including teachers from Ireland and Singapore, who are all motivated to support evidence-based improvement in education. Fourth, you will steer the design of a digital formative assessment tool that aims to support student learning and teaching practices for a growing list of important 21<sup>st</sup> Century competences.

***Interested? Here is how to get involved!***

Please see the attached document 'PILApresentation\_Teachers\_Netherlands.pdf' for more information on PILA. This pilot study is conducted in partnership with Utrecht University's Freudenthal Institute and the Netherlands Institute for Curriculum Development (SLO). You can communicate your interest in collaborating on this first phase of the PILA project through a short message to myself, Mario Piacentini ([mario.piacentini@oecd.org](mailto:mario.piacentini@oecd.org)), and to Paul Drijvers at the Freudenthal Institute ([p.drijvers@uu.nl](mailto:p.drijvers@uu.nl)) and Jos Tolboom at SLO ([j.tolboom@slo.nl](mailto:j.tolboom@slo.nl)). You are also welcome to email me in case you need any additional information on the project or would like to meet the team.

We really hope that you will accept this invitation to participate in this study and we look forward to working with you.

Yours sincerely,

*Mario Piacentini*

Mario Piacentini