TIWI -
Teaching ICT with Inquiry

MASSIVE OPEN ONLINE COURSE (MOOC)

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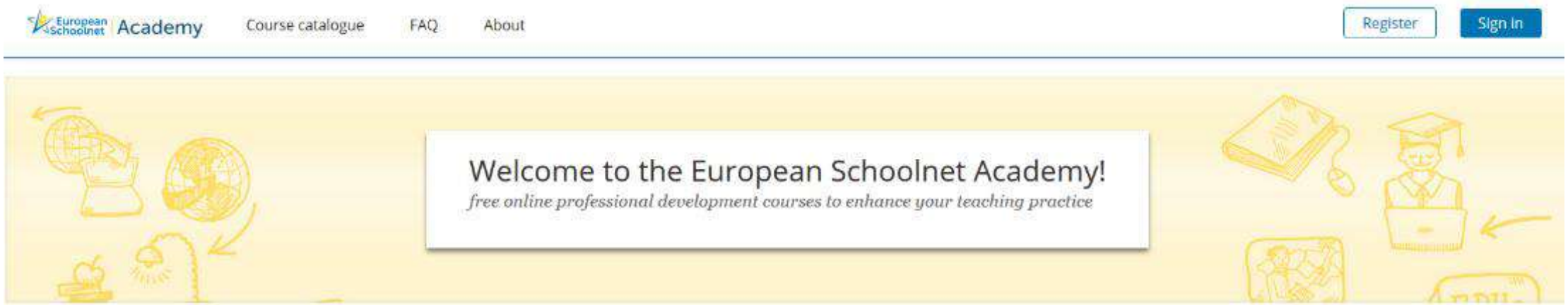
TIWI Online Event
04 September 2020

Co-funded by the Erasmus+ Programme of the European Union

European Schoolnet Academy



The **European Schoolnet Academy** - a platform offering **free MOOCs for teachers** focusing on innovation in the school and classroom.

European Schoolnet Academy

europeanschoolnetacademy.eu

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MOOC OVERVIEW

- **4 Modules**
- **Programming languages** (Scratch for primary and Python for secondary) and data spreadsheets (Excel) and how to **apply these programming skills** in STEM (real-life application)
- Basic learning **IBSL scenarios**
- **Pedagogical guidelines** for classroom activities
- **Authoring tool** (http://graasp.eu/) to create **inquiry-based learning activities**
- **Career information** to motivate students and present a variety of **STEM and ICT-related jobs**

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MOOC – Module 1

- **Intro module**
- Focus on **ICT** and link to **Inquiry**
- Learn about **Inquiry-Based Learning**, different types of IBL and how to use them
- Familiarize with the Inquiry Learning Cycle in the context of IBL
- **Go-lab repository** and **Graasp** and its authoring tool
- **ICT Careers** (Part 1)

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MOOC – Module 2

- Focus on IBSL and link with technology (learning activities, IBL, technology, ILS)
- **Computational thinking** vs **programming** and how to use them in class.
- Familiarize with **Scratch and Python** (programming languages) as well as **Excel**
- Keep on exploring features in **Graasp**
- **ICT Careers** (part 2)

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MOOC – Module 3

- **Coding** and **computational thinking** as a tool for STEM lessons
- Graasp and intro to **preparing your ILS**
- ICT **implementations** in STEM lessons from Go-Lab and Graasp users
- **ICT Careers** (Part 3)

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MOOC – Module 4

- Tips and tricks for ILS
- Explore the **rubric**
- ILS submission
- **Evaluation** of 3 ILSs based on the rubric
- **ICT Careers** (Part 4)

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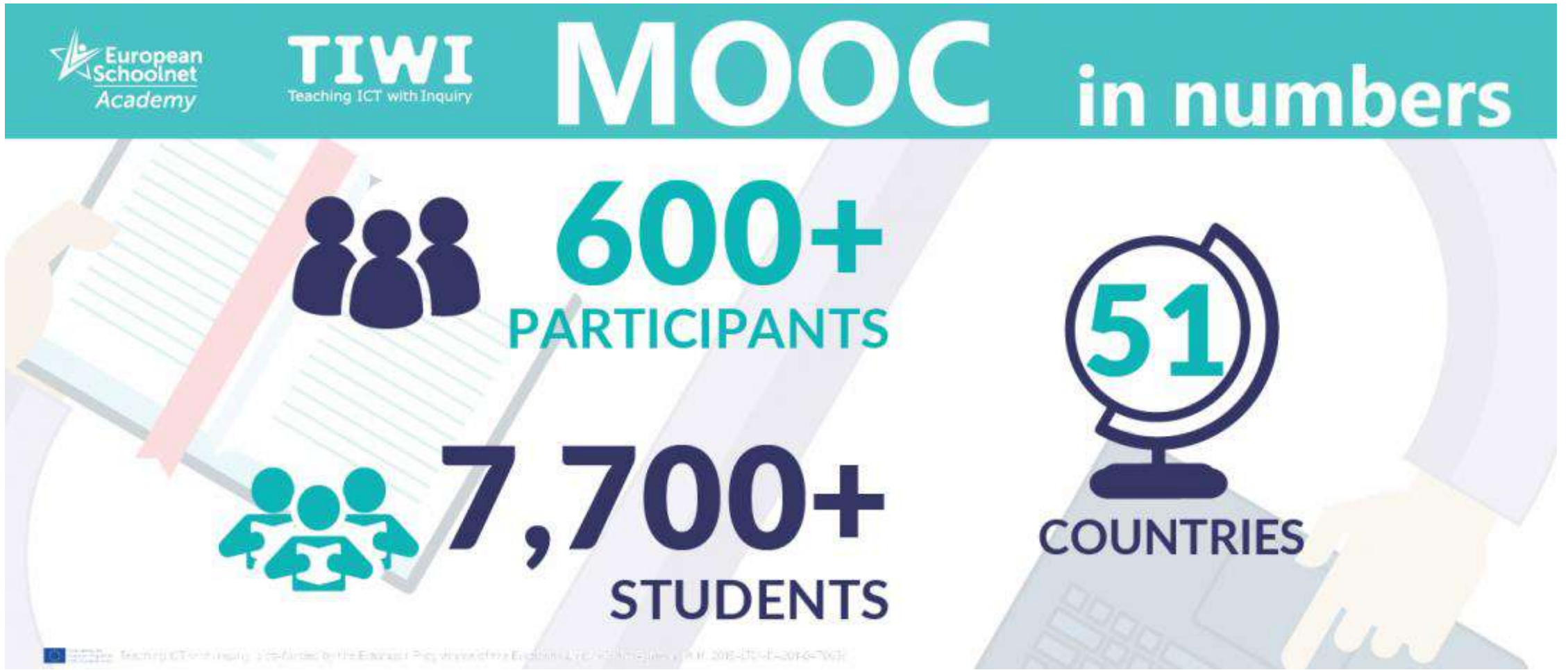

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Overview and key findings

MOOC URL

Main audiences:

ICT and STEM teachers Europe and beyond. This MOOC will be open to any interested teachers of other subjects who would like to learn more about ICT tools and inquiry-based science education, or career counselors who are looking for a career material for STEM and ICT-related jobs.

Course start:

9 September 2019

Course deadline:

16 October 2019

Modules: 4

- According to data collected via the pre-course survey, the majority of course participants are secondary school teachers, female and 36 years old or older.
- All **97%** rated the overall value of the course as "Good" or "Very good".
- All **94%** would recommend the course to a colleague or a friend.
- All **94%** Agreed that they will use the ideas and examples presented in the course in their everyday work.

** Based on those who passed all graded activities, including peer assessment. 359 participants attempted the final peer assessment and **64** participants failed.*

***The course engagement rate is calculated by dividing the total number of participants who at least started the first compulsory module of the MOOC by the total number of registrations.*

****The course completion rate is calculated by diving the total number of participants that completed the course (and were thus awarded a certificate for course completion) by the total number of participants who started at least the first compulsory module of the MOOC).*

Basic numbers

1851 people from 77 countries registered to take part in the MOOC

649 participants started following at least one course module

295 participants passed the MOOC and received the course certification*

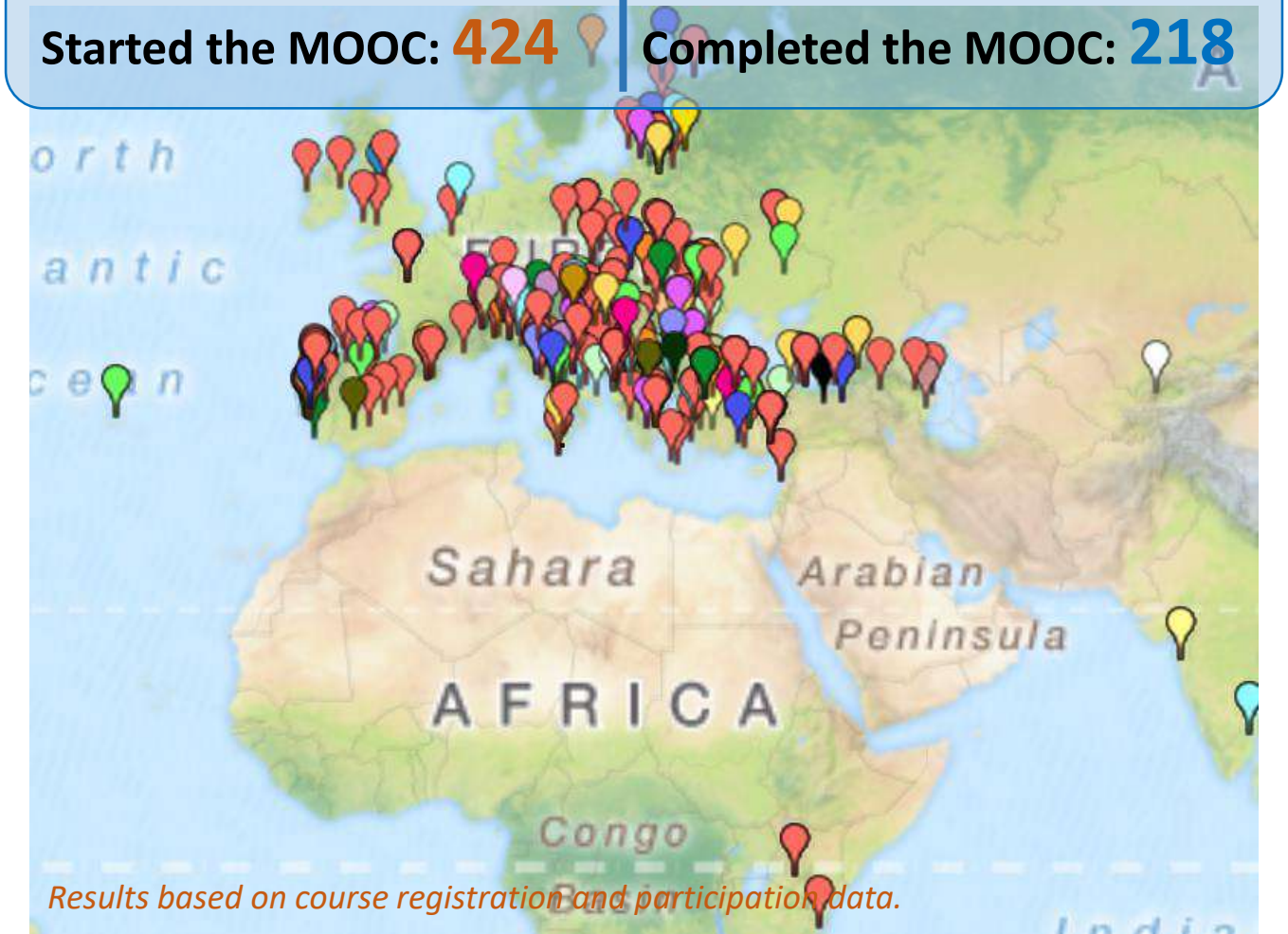
35% engagement rate**

45% completion rate***

Participants' profile

EU28 course participation (51% completion rate)

Started the MOOC: 424 | Completed the MOOC: 218

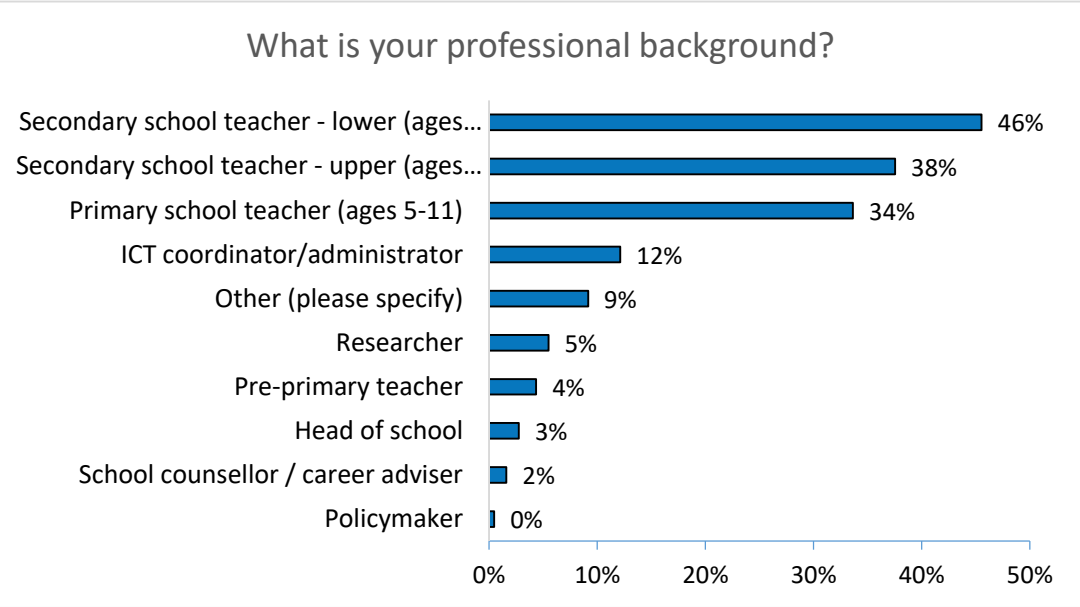


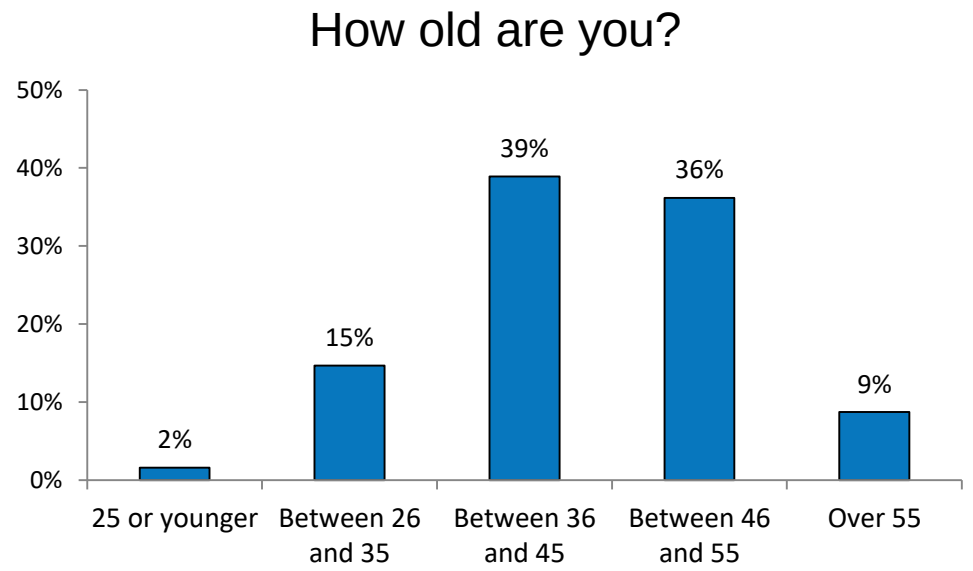
Results based on course registration and participation data.

Top 10 countries by number of participants that

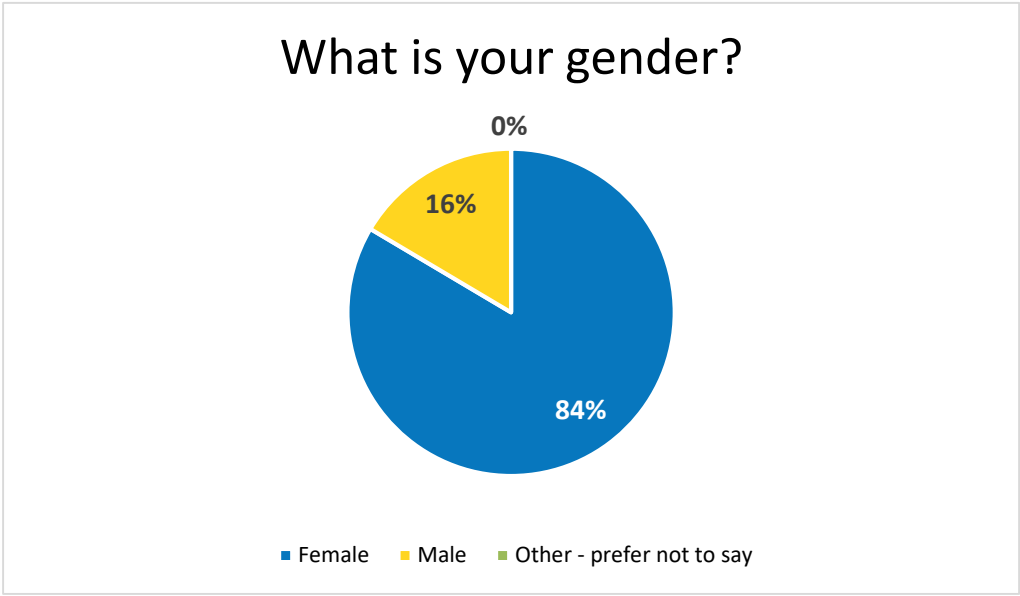
Started		Completed	
Turkey	119	Turkey	38
Italy	66	Portugal	35
Portugal	60	Italy	33
Romania	57	Romania	26
Croatia	49	Greece	23
Greece	48	Croatia	22
Lithuania	40	Spain	21
Spain	38	Lithuania	20
France	22	France	15
N. Macedonia	21	N. Macedonia	10

Participants' profile

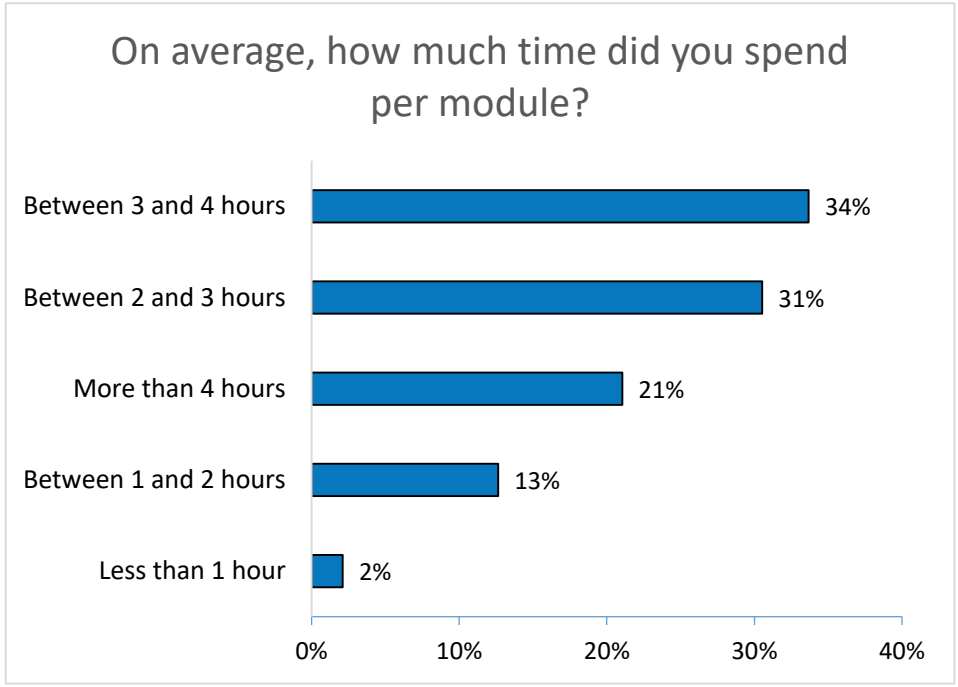


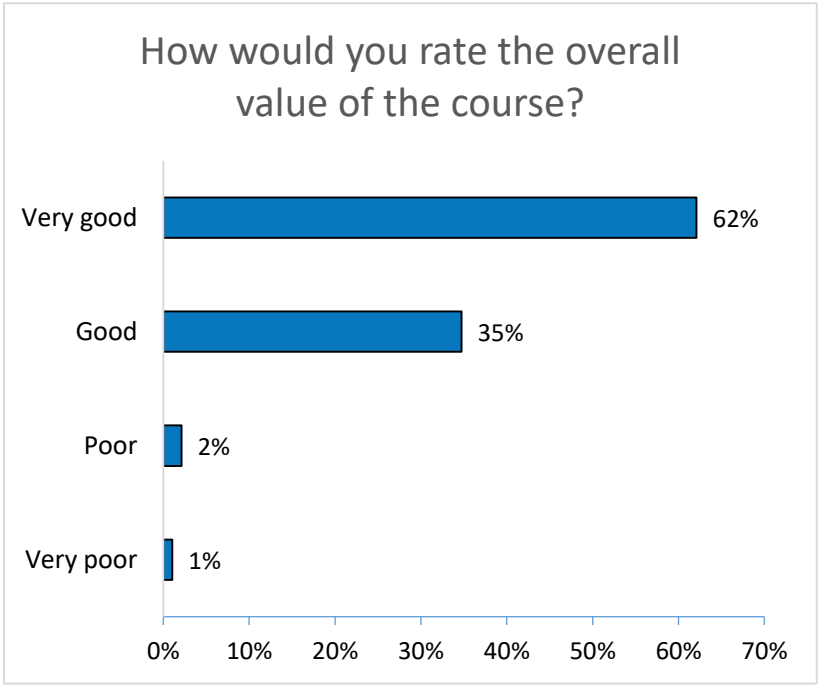


- Secondary school teachers: **84%**
- Female: **84%**
- Age: **84%** were **36** years of age or older.



Results based on responses to the pre-course survey (N=437)





97% of **post**-survey respondents rated the overall value of the course as “Good” or “Very good”

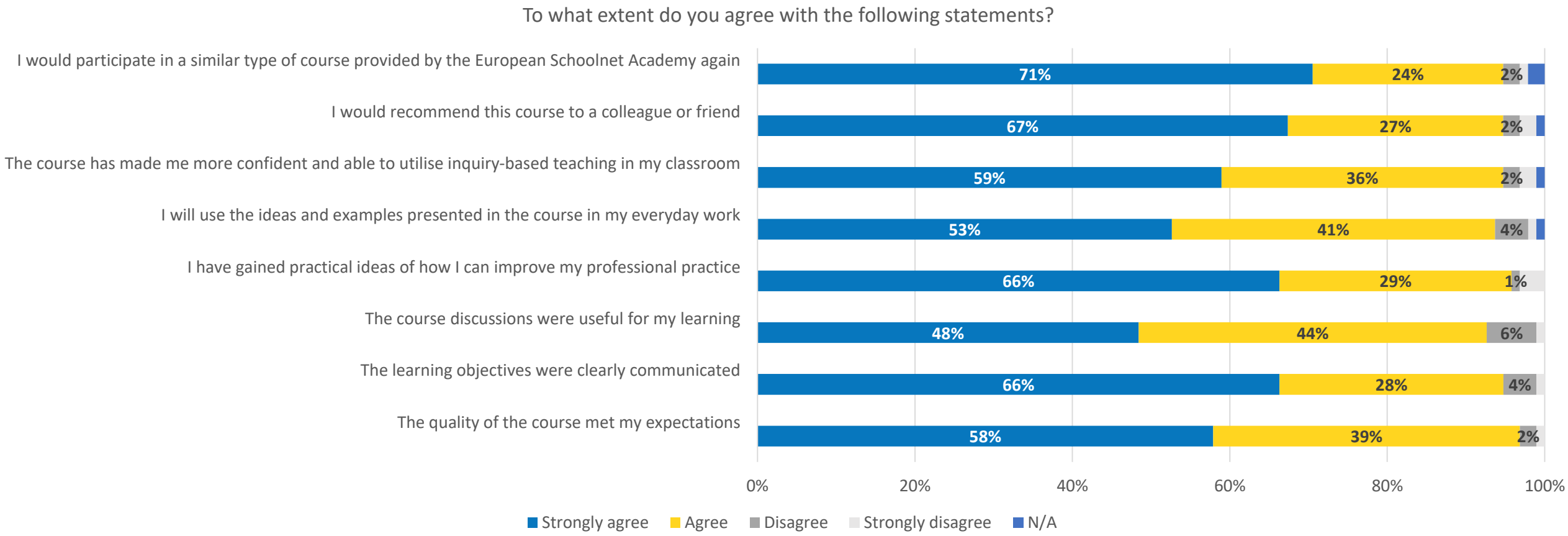
21% of **post**-survey respondents spent more than 4 hours on the course.

Results based on the post-course survey (N= 107)

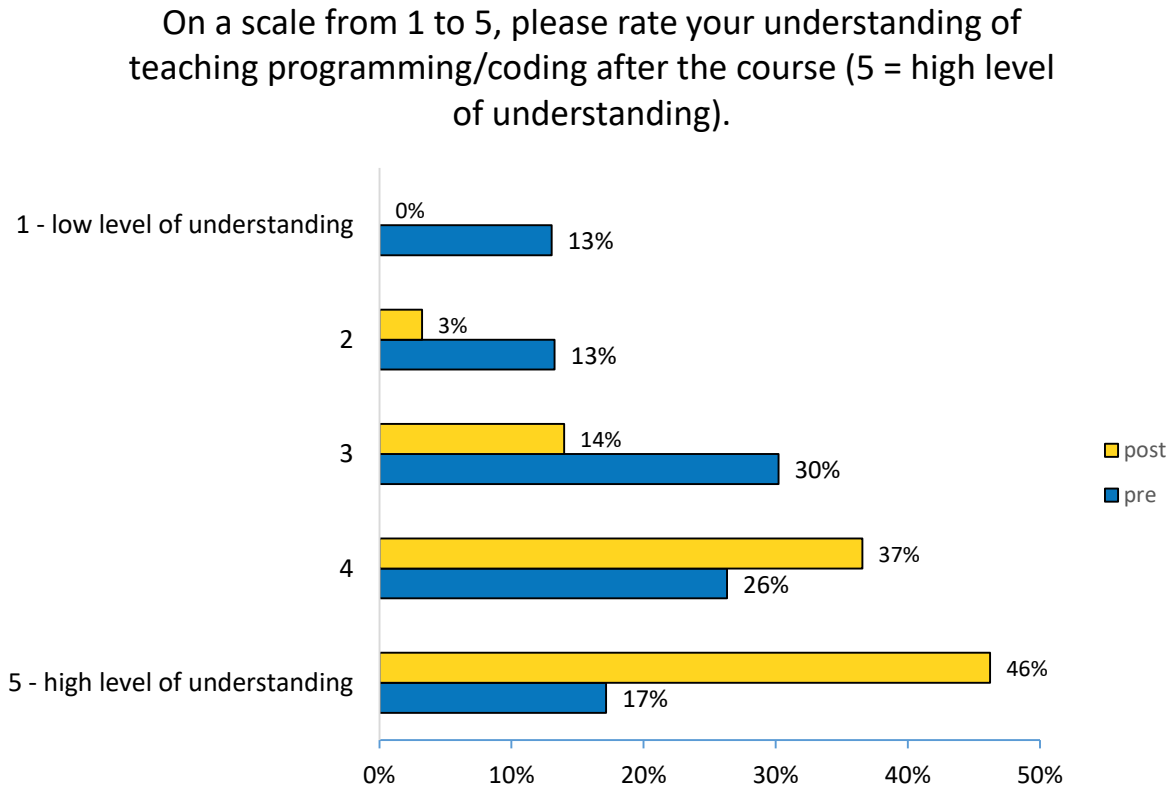
Course impressions

94% **Agree** or **Agree strongly** that the learning objectives were clearly communicated.

94% would recommend this course to a colleague or friend (**Agree** or **Agree strongly**)

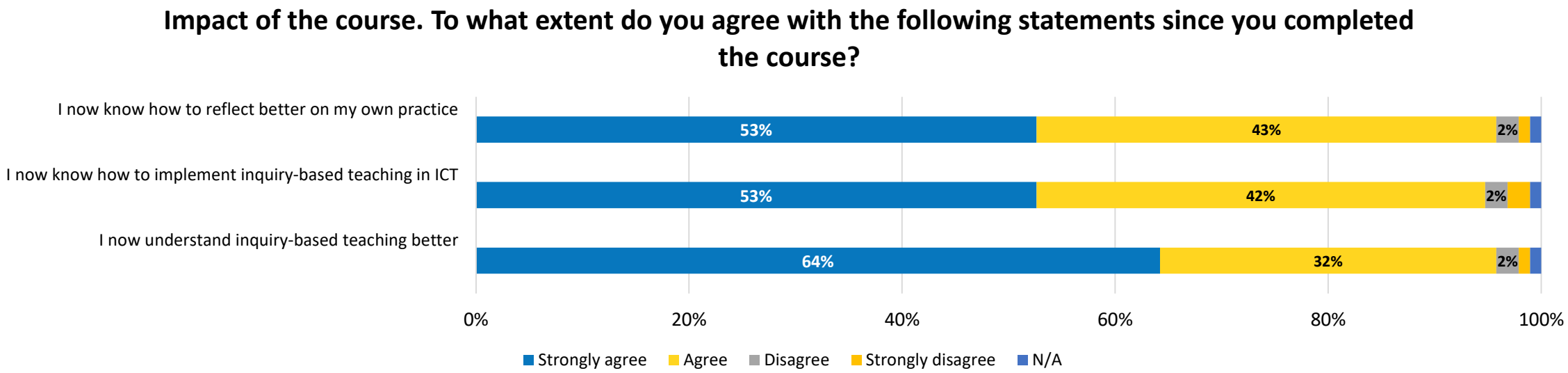


After taking the course, participants' self-evaluated understanding of course topics was highly positive.



Course impact

95% **Agree** or **Agree strongly** that they now know how to implement inquiry-based teaching in ICT.



Some comments from participants

- “If you can, kindly keep me in the know when next you have a similar course. It will be great if I can get more on the coding training.”
- “I feel honored to be part of this course and I have been very happy to learn about education from the teachers around the world. Thank you!”
- “First, I thought it would focus primarily on programming, and I got a little off the hook. Then I found that it corresponded to what I needed to interest my students in the study of science, and […] I managed to finish it and learn about the various tools it offers for meaningful student learning.”
- “I have been able to get introduced to programming and hope to continue to make myself better in the same”