

How can the EPS and other organizations support “non-specialist”^{*} teachers in Europe?

David Sands & Ian Bearden, EPS-PED

^{*}that is, no (or very little) formal physics background

Context

The world-wide shortage of physics teachers has been a problem for some time.

We don't know the true extent of the problem.

The teaching profession in Europe faces a significant challenge*.

- 81% of teachers in the EU feel that teaching is not valued in society
- Around 36% of all teachers in the EU are aged 50 or over
- Only 7% are under the age of 30
- 72% of teachers are female

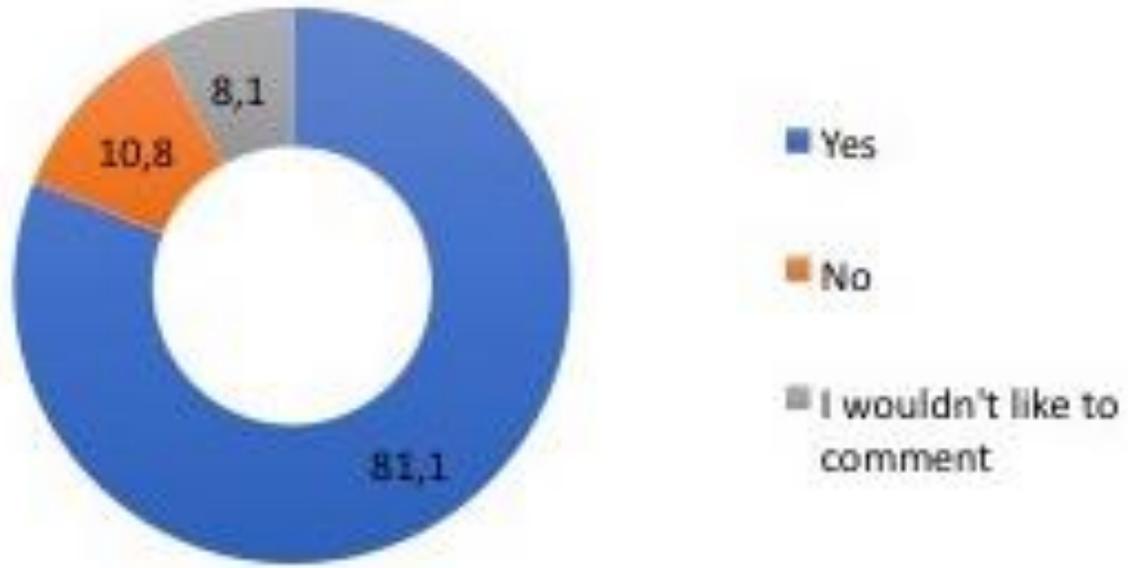
* [https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/642220/EPRS_BRI\(2019\)642220_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/642220/EPRS_BRI(2019)642220_EN.pdf)

The issue

The EPS-PED has begun to survey members

- 78 respondents so far
 - 38 teach in a university
 - 20 involved in teacher education
 - 18 teach in a secondary/high school
 - 26 others

Do you believe there to be a shortage of specialist physics teachers?



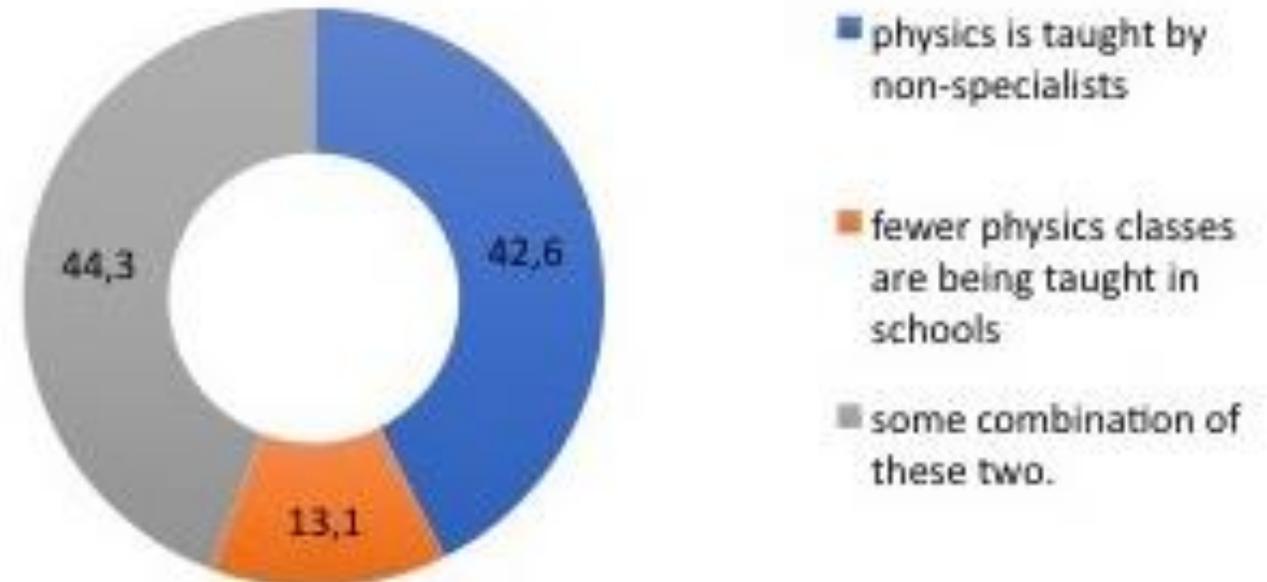
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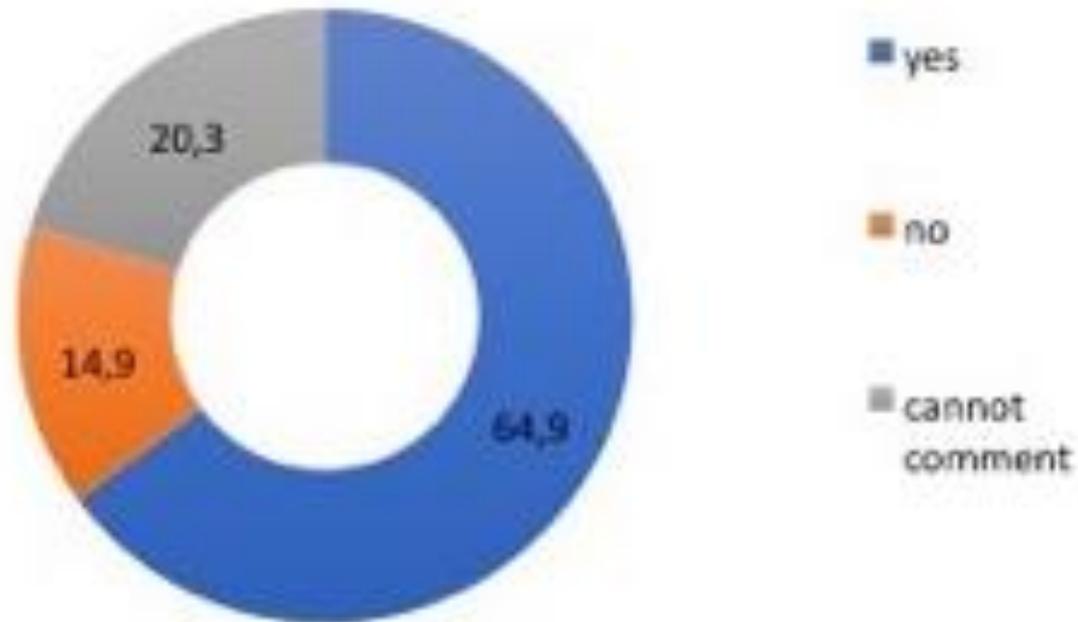


what in your experience are the consequences of this shortage?



Majority believe university students' quality affected

Do you think the quality of some students entering university in your country has been affected by the shortage of specialist teachers?



Possible solution

Professional recognition and support through the EPS or member societies (IOP, DPG, etc)

- Should apply to **ALL** teachers of physics
- Chartered Physicist (IOP) available (not restricted to UK & Ireland)
- But:
 - Is it attractive?
 - Affordable?
 - Value for money?

CPD for non-specialists (without a degree in physics)

- Not available through small national societies – role for EPS?
- What should it cover?
 - Experimental physics ?
 - Subject content ? – important, but should we go beyond?
 - What makes physics different from other sciences?
 - Where does mathematics fit in?
 - **How is physics “done”?**

Questions

- Is lack of specialist physics teachers as big a problem as we think?
- Do these ideas seem sensible? Do you have or know of CPD programs in physics from which we might learn?
- How can other organizations support these or other aims?