

# WHAT KIND OF SUPPORTS DO SCIENCE TEACHERS NEED DURING THE PANDEMIC?

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# The team



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# Background

- The pandemic presents a challenging situation for science teachers, not only because science lessons needs practical activities but also in managing students' engagement
- The availability of technology and internet access vary amongst schools
- The government provides internet packages to students and teachers but availability of device and signal are the issues
- Schools and teachers are not prepared for online teaching

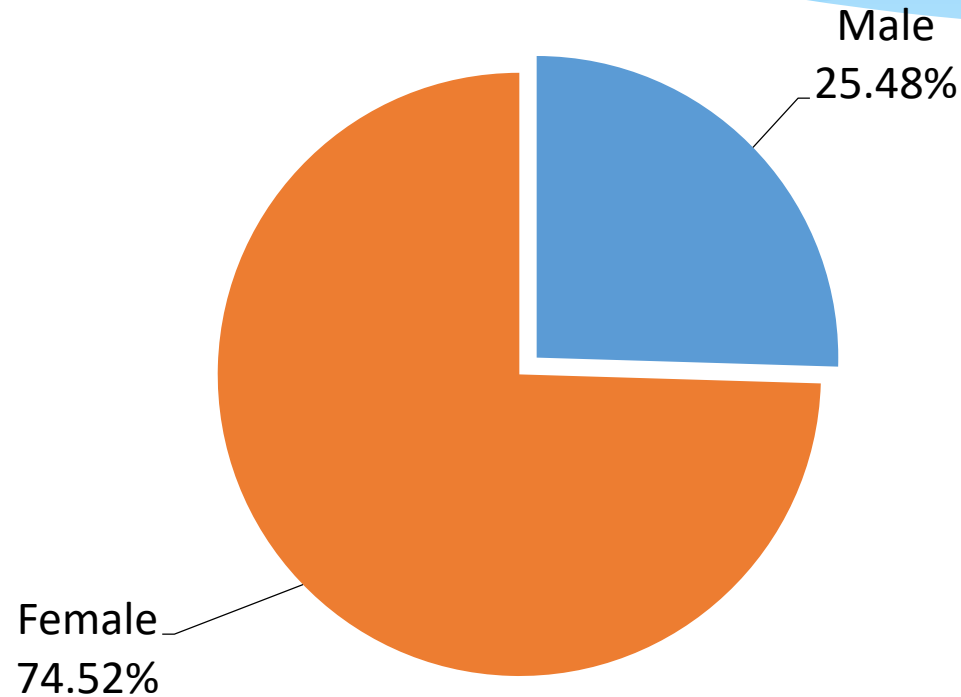
# The survey

## Issues identified

1. Challenge/issues
2. Changes made in teaching
3. General competencies to be developed
4. Instructional Competence needs to be further developed
5. Source of support

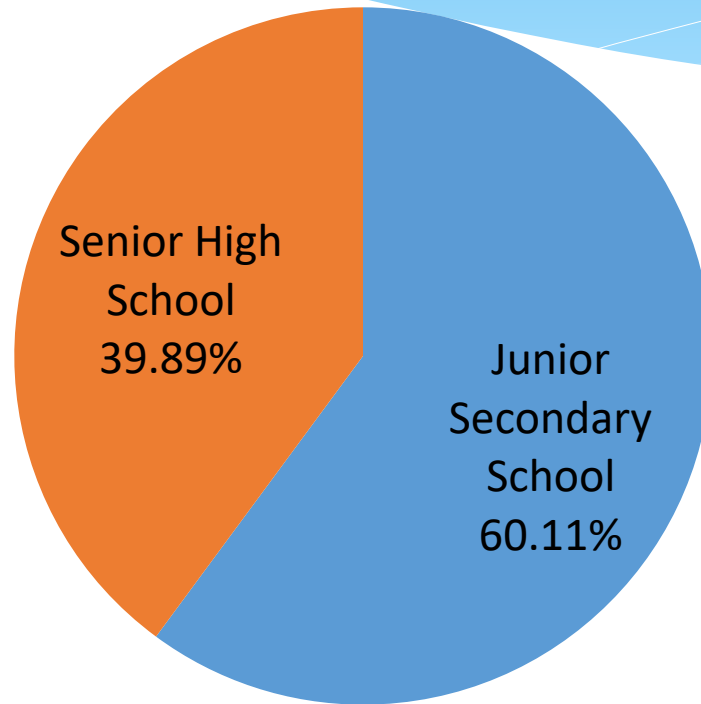
# Profile of the respondents: Gender

- Total 1048 teachers



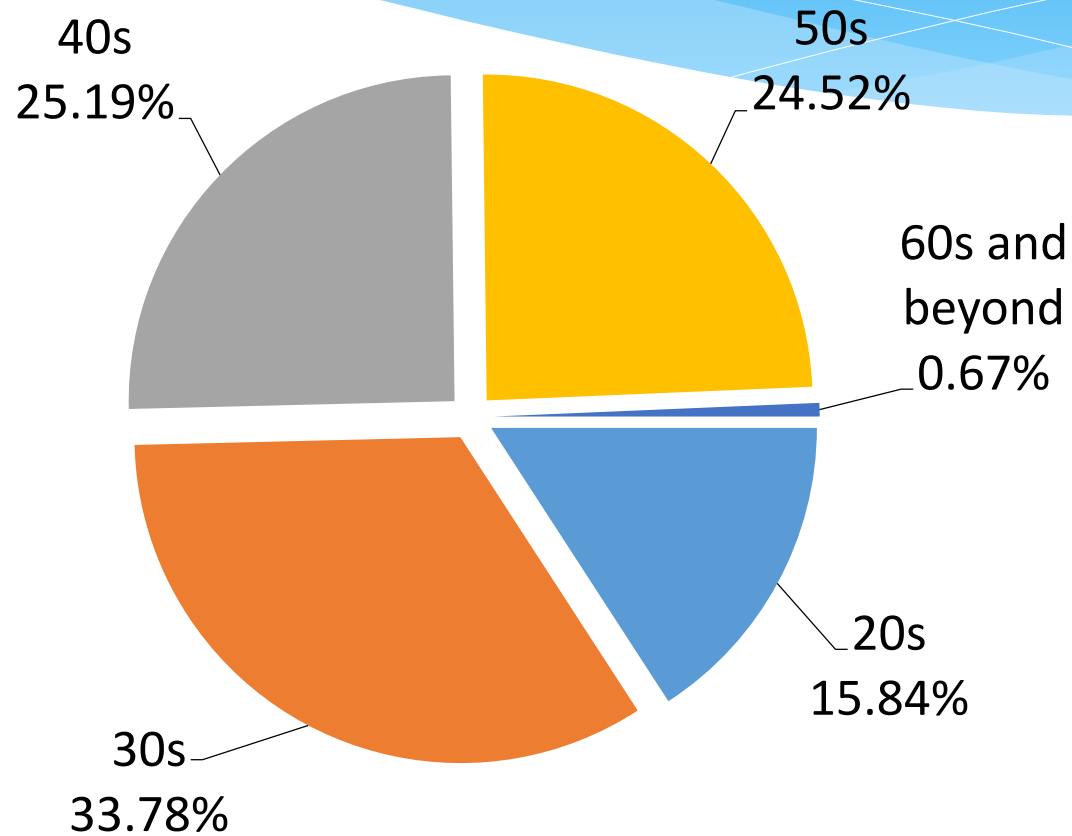
Gender

# Profile of the respondents: School they teach



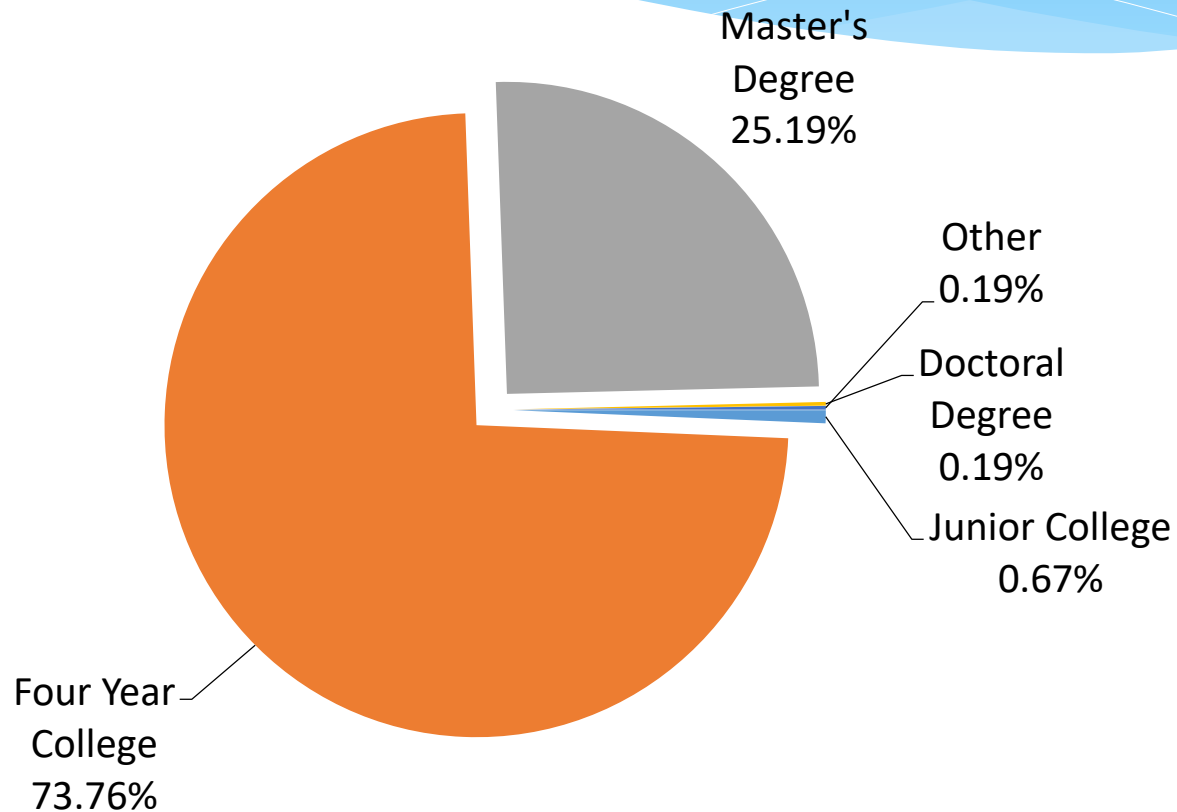
**Level of schools teach**

# Profile of the respondents: Age



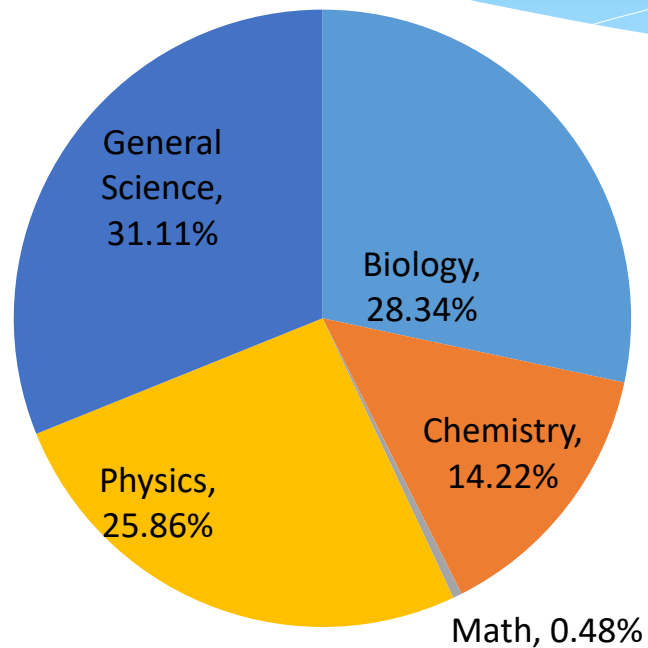
Age

# Profile of the respondents: Education degree



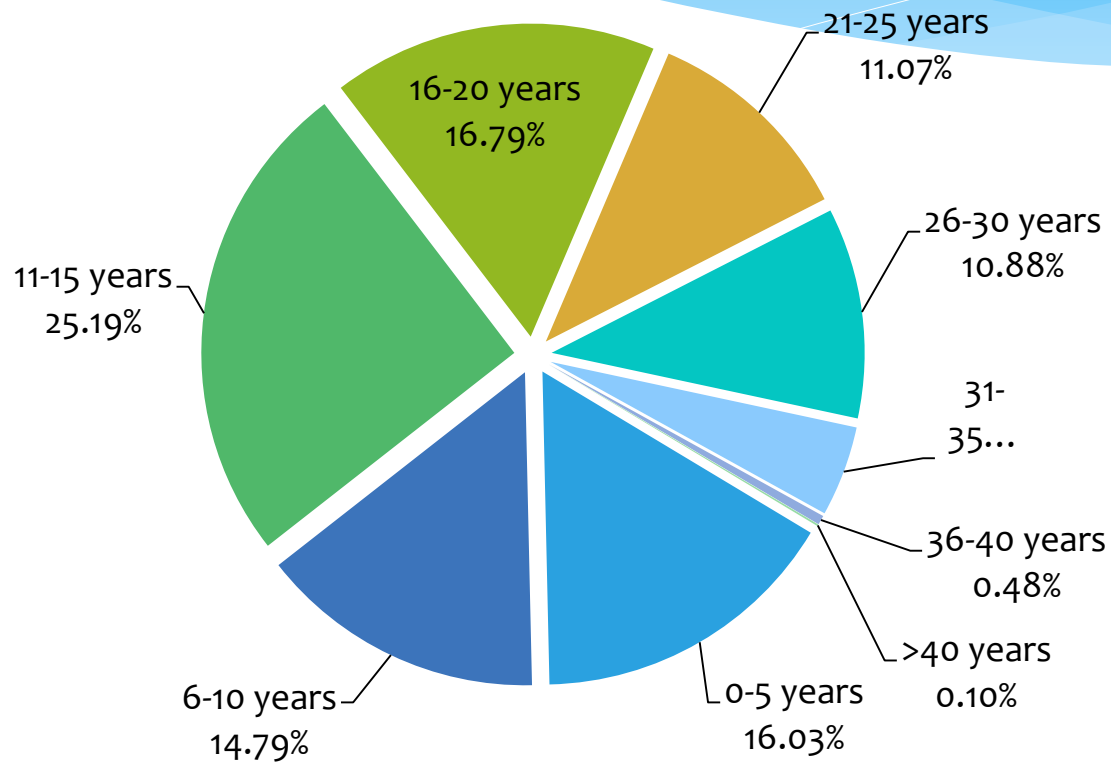
**Education degree**

# Profile of the respondents: major



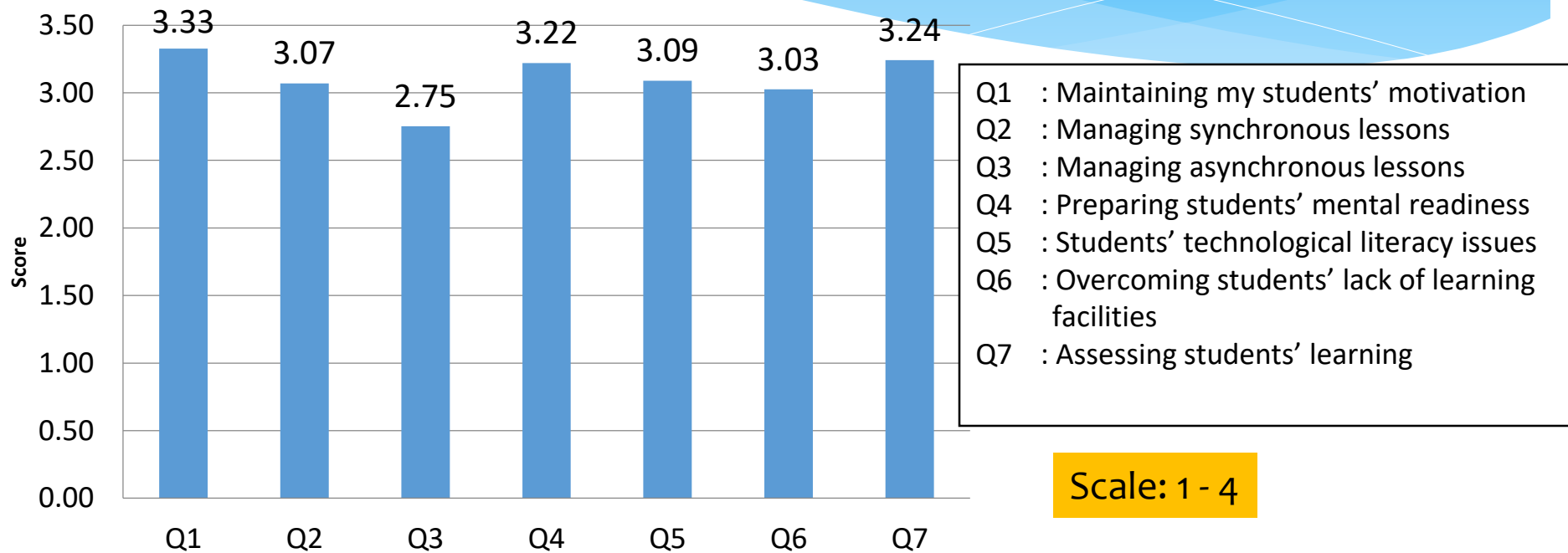
**Science major**

# Profile of the respondents: Teaching experience



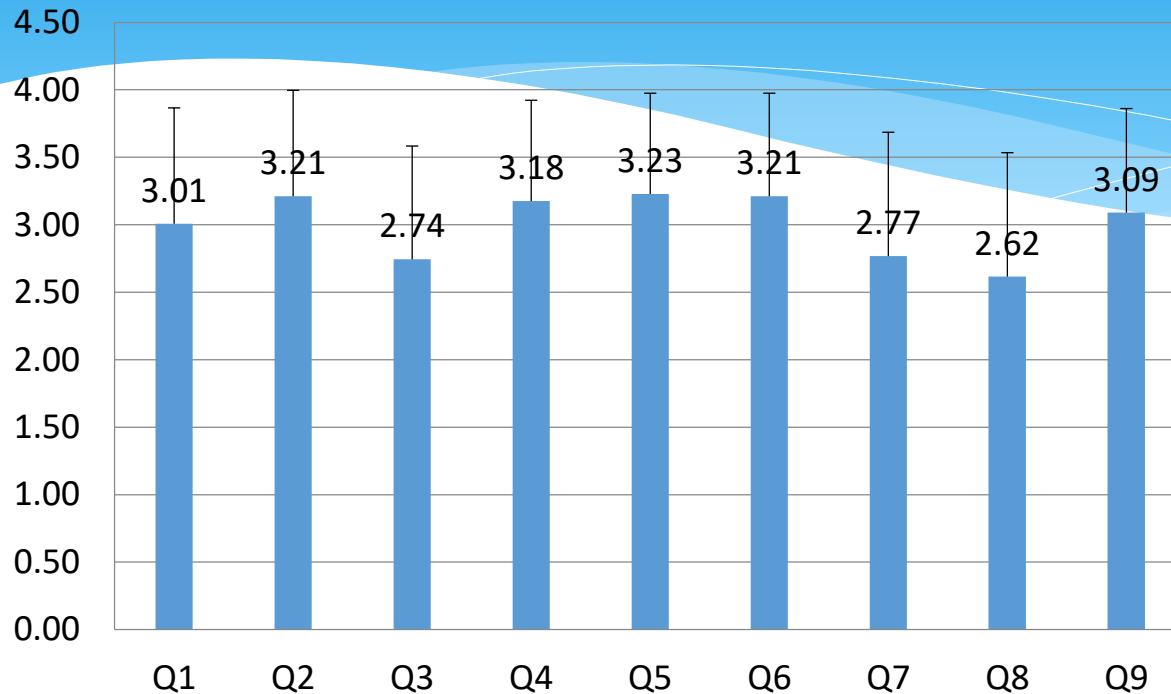
**Teaching experience**

# Challenges faced by teachers



Teachers have difficulties in most issues

# Strategies adopted by teachers

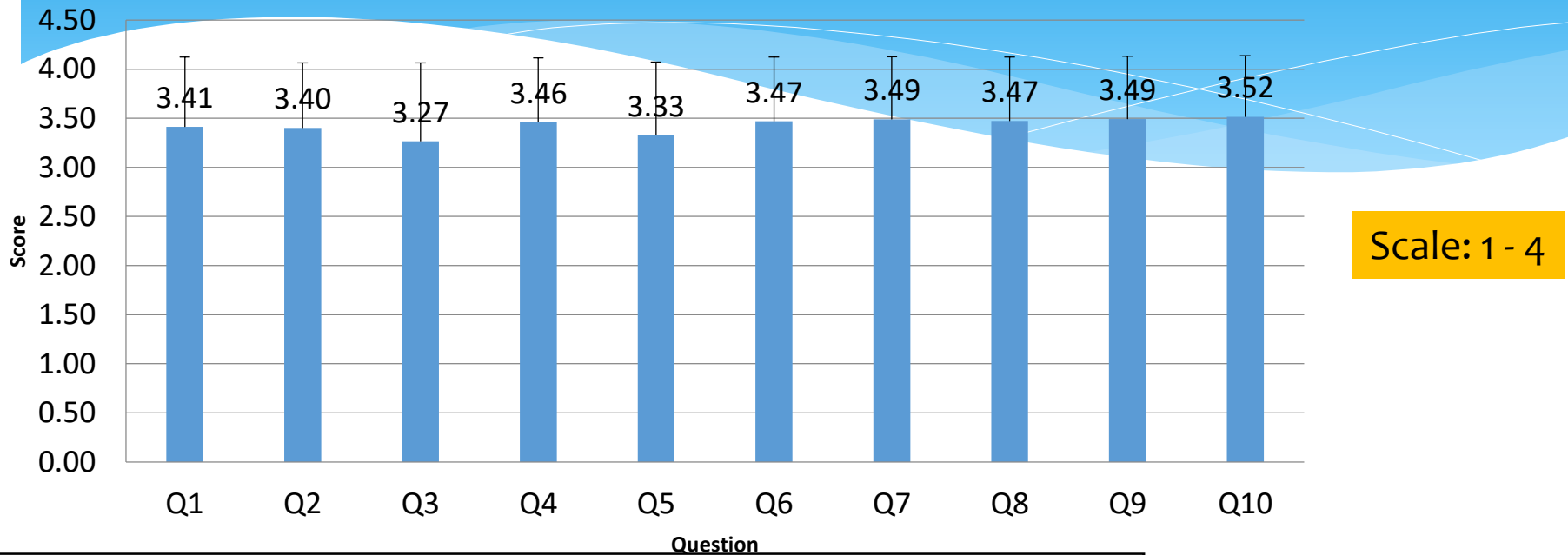


Scale: 1 - 4

- Q1 : I adjust the content of my lessons by reducing the coverage of the contents
- Q2 : I adjust the content of my lessons by selecting the essential concepts
- Q3 : I adjust the content of my lessons by integrating it with other school subjects
- Q4 : I adjust my teaching strategy
- Q5 : I adjust my teaching materials
- Q6 : I adjust my teaching media
- Q7 : I adjust my classroom management by using LMS
- Q8 : I adjust my classroom management by organizing group works
- Q9 : I adjust my classroom management by providing more motivational supports and e engagement

Teachers adjusted the content, the teaching strategy and the assessment

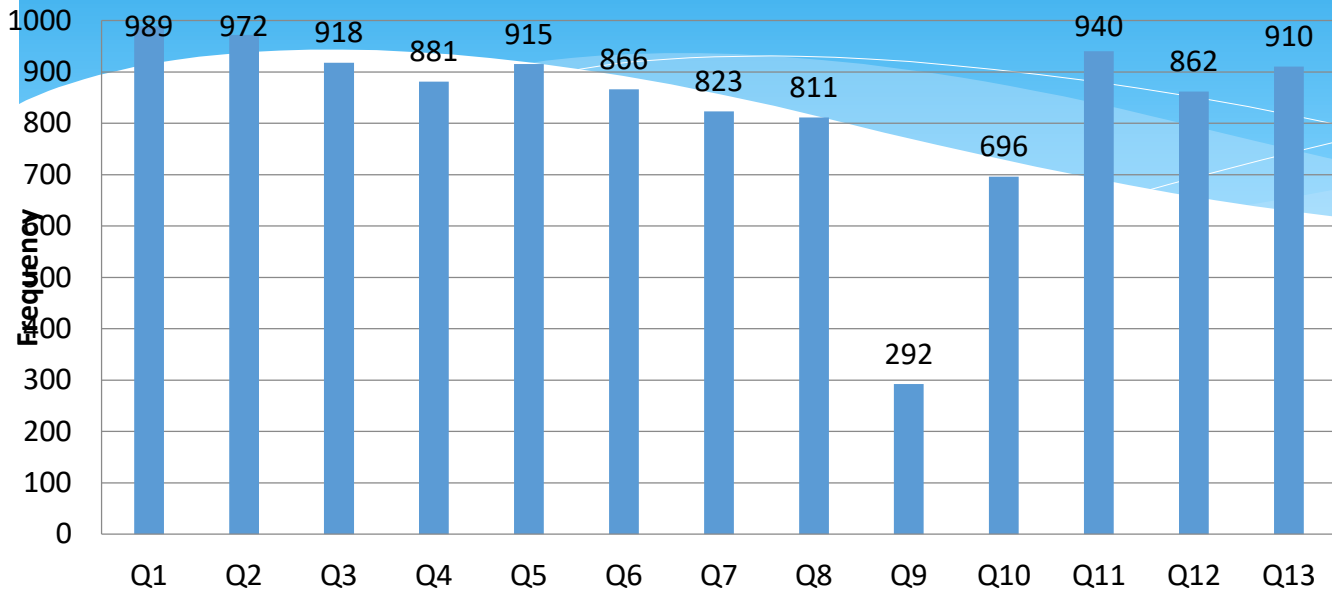
# Training needed by teachers



Teachers need training in most areas

- Q1 : I need more training on making use technology  
Q2 : I need more opportunities to develop my collaboration skills  
Q3 : I need to improve my English competency  
Q4 : I need to improve my professional learning skills  
Q5 : I need training on reconstructing curriculum  
Q6 : I need training in designing flexible lessons based on the situation  
Q7 : I need training in delivering lessons by using varieties of technology and teaching strategy  
Q8 : I need training in developing teaching materials  
Q9 : I need training in using new assessment techniques and technology  
Q10 : I need training in strategy to motivate and manage students' engagement

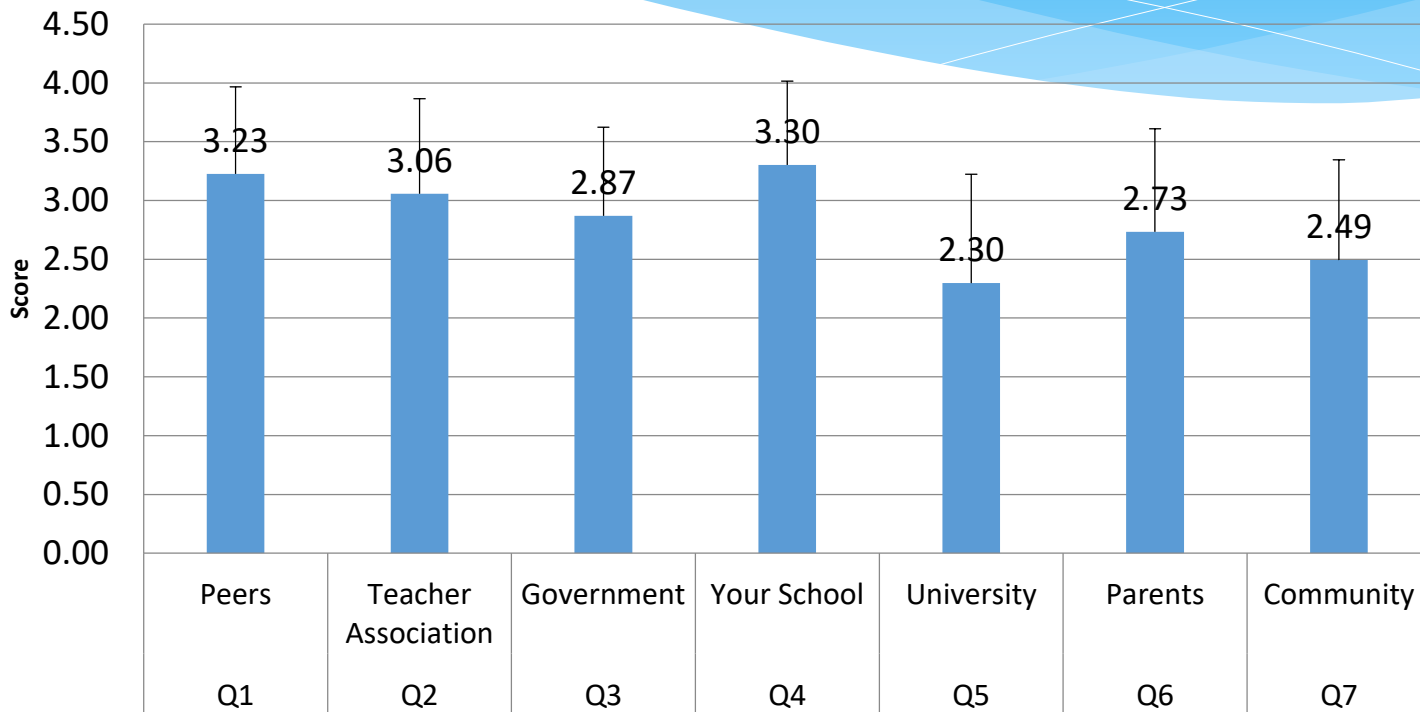
# Training offered to teachers



- Q1 : Knowledge and understanding of my subject field
- Q2 : Pedagogical competencies in teaching my subject field
- Q3 : Knowledge of the curriculum
- Q4 : Student assessment practices
- Q5 : ICT skills for teaching
- Q6 : Student behaviour and classroom management
- Q7 : School management and administration
- Q8 : Approaches to individualized learning
- Q9 : Teaching students with special needs
- Q10 : Teaching in a multicultural setting
- Q11 : Teaching general cognitive skills such as creativity, critical thinking, problem solving
- Q12 : Analysis and use of student assessments
- Q13 : Teacher-parent/guardian co-operation

Very few science teachers have taken training on teaching students with special needs

# Source of Teachers' Support



School, peer and teacher association are main source for support

# Recommendations for the Follow up Program

1. Training should not only focus on science teaching-related issues but also on more general issues, e.g. developing and maintaining students' motivation
2. School-based or teacher association-based training can be a better option for training teachers
3. Teachers adjusted the lessons but there is no evidence if the adjustment sufficiently meet students' conditions and expectations. Additional information from students' side is needed.



Thanks for your kind attention