

# ICT Perceptions and Self-efficacy of Maths and Non-Maths Teachers

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# Introduction



Issue: Inadequate ICT use by teachers



Importance: Digital preparedness and enhanced quality education



Argument: Teachers' ICT skills gap limits effective use

# Literature Review

## Evidence gap

*Contradictory evidence gap*

Some studies show positive perceptions and benefits of ICT usage, while others report negative attitudes and challenges

## Knowledge gap

*Knowledge void gap*

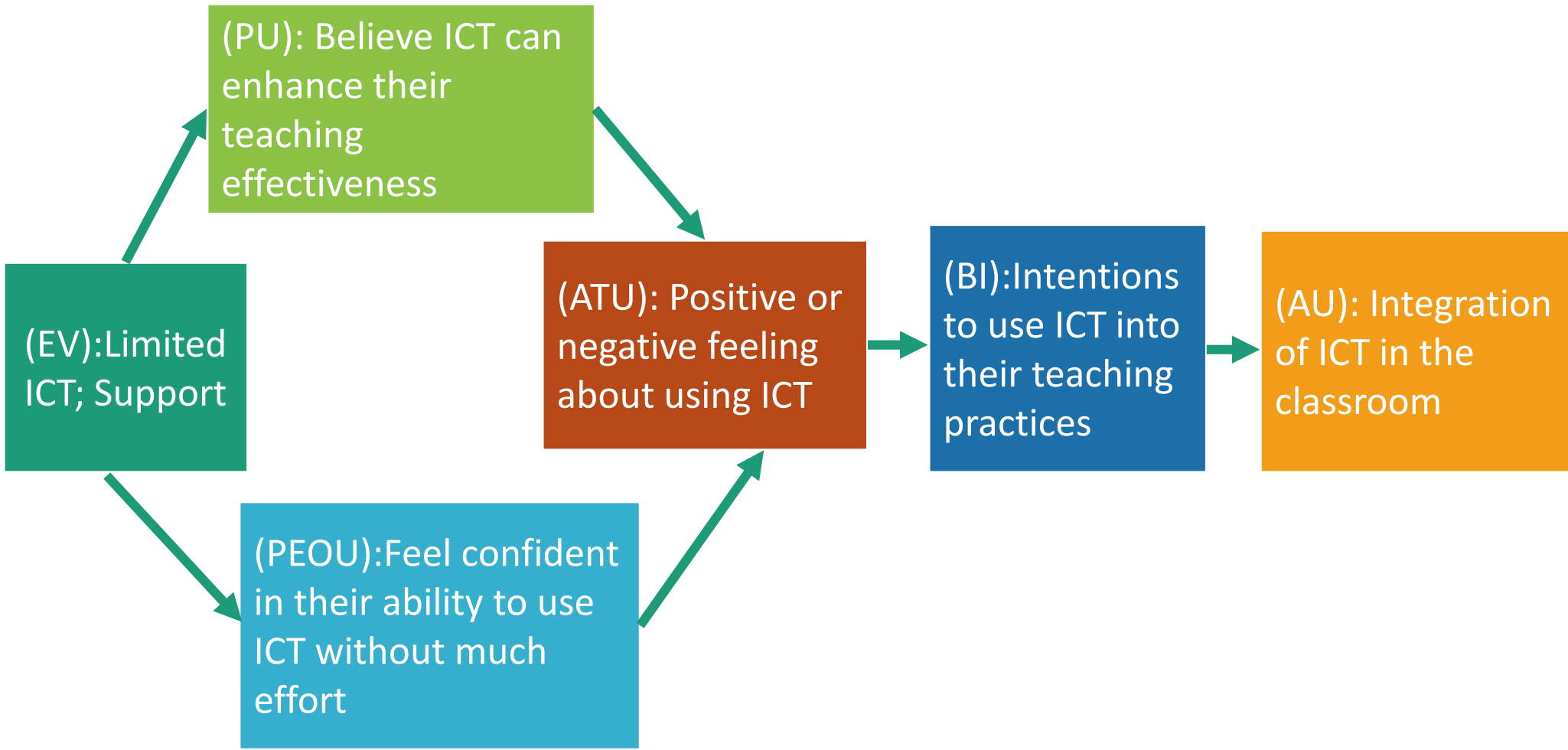
Limited research on the perceptions and practices of ICT integration among teachers within a specific municipality

## Practical knowledge gap

*Action knowledge-conflict gap*

Need for enhanced ICT integration training in schools

# Technology Acceptance Model



# Methods

Quantitative, cross-sectional survey

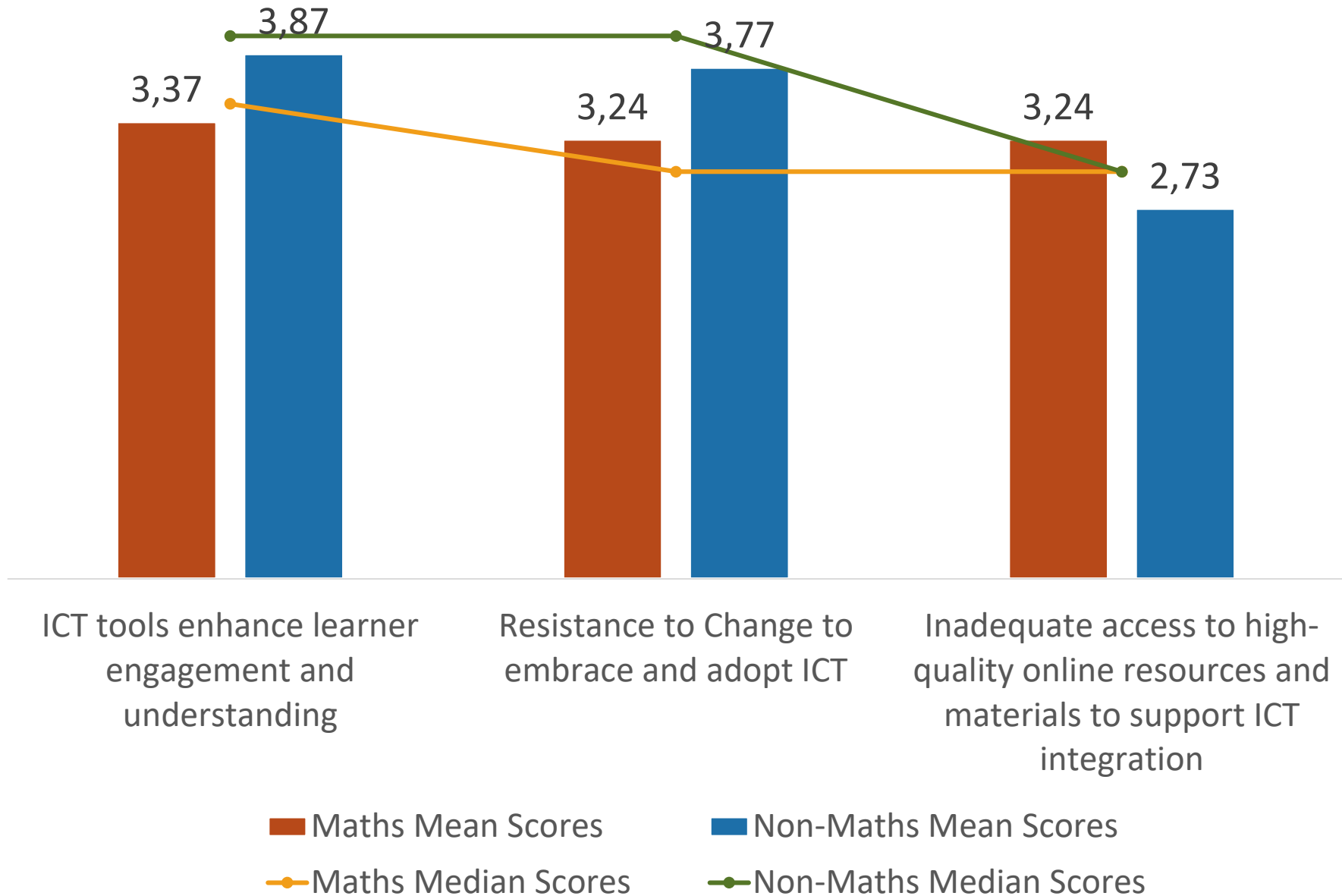
Convenience sampling of 68 teachers; Nama Khoi Municipality

Face-to-face questionnaire distribution

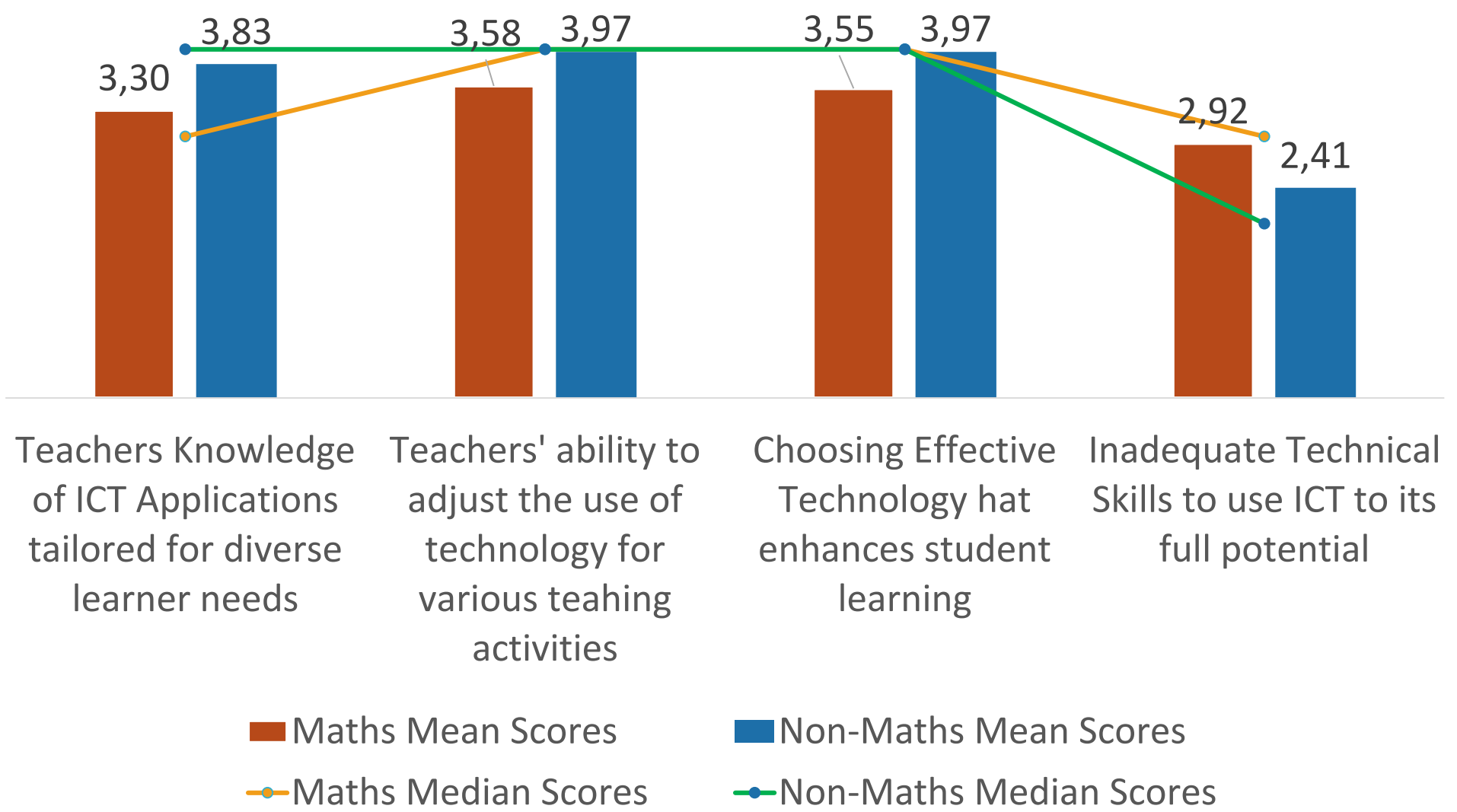
50 females, 15 males, 3 prefer not to say; majority aged between 27 and 31

Descriptive, inferential statistics via SPSS, Mann-Whitney U test

# Mean And Median Scores



# Mean And Median Scores (Cont.)

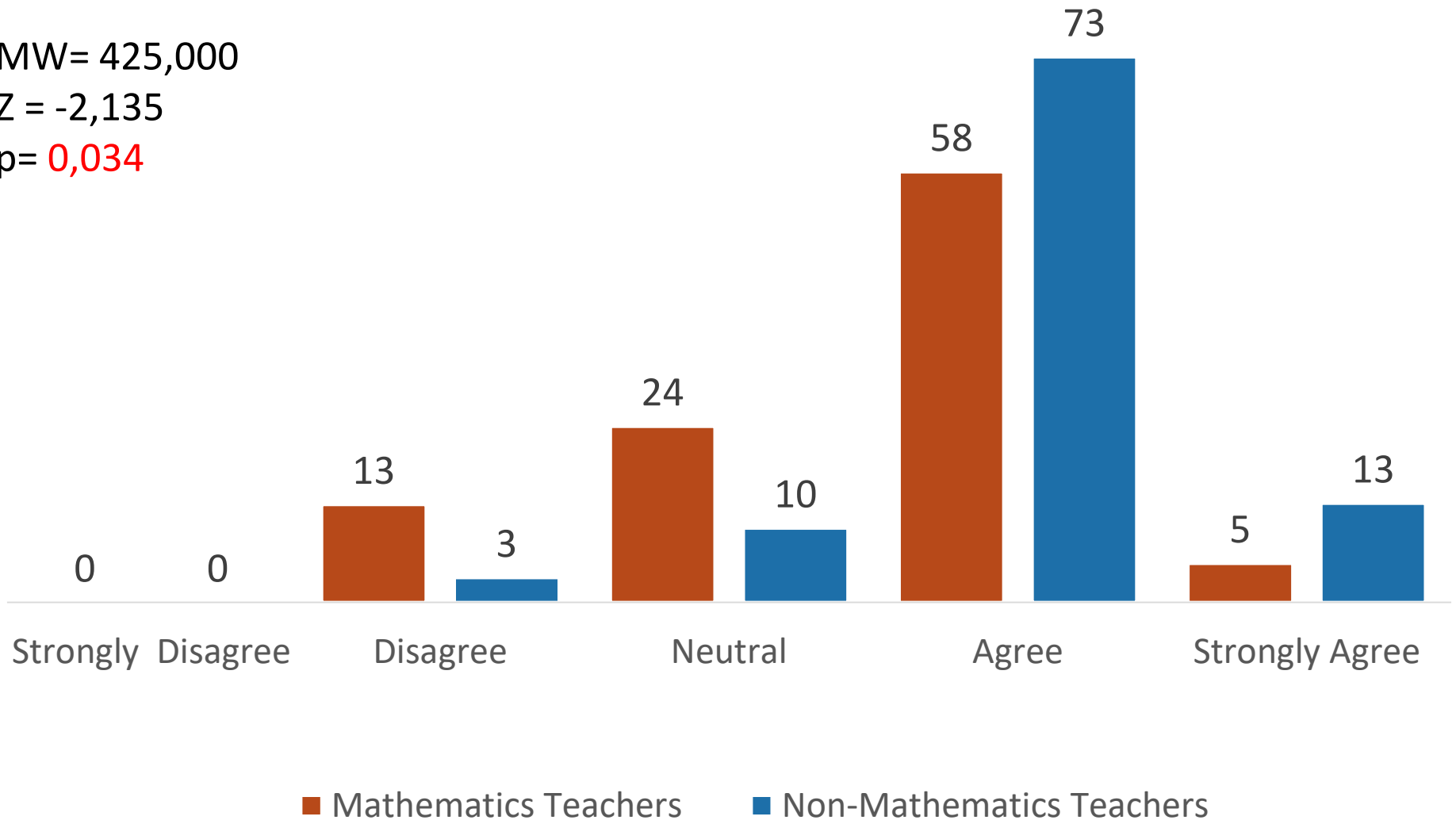


# Ability To Adjust The Use Of ICT For Various Teaching Activities (in %)

MW= 425,000

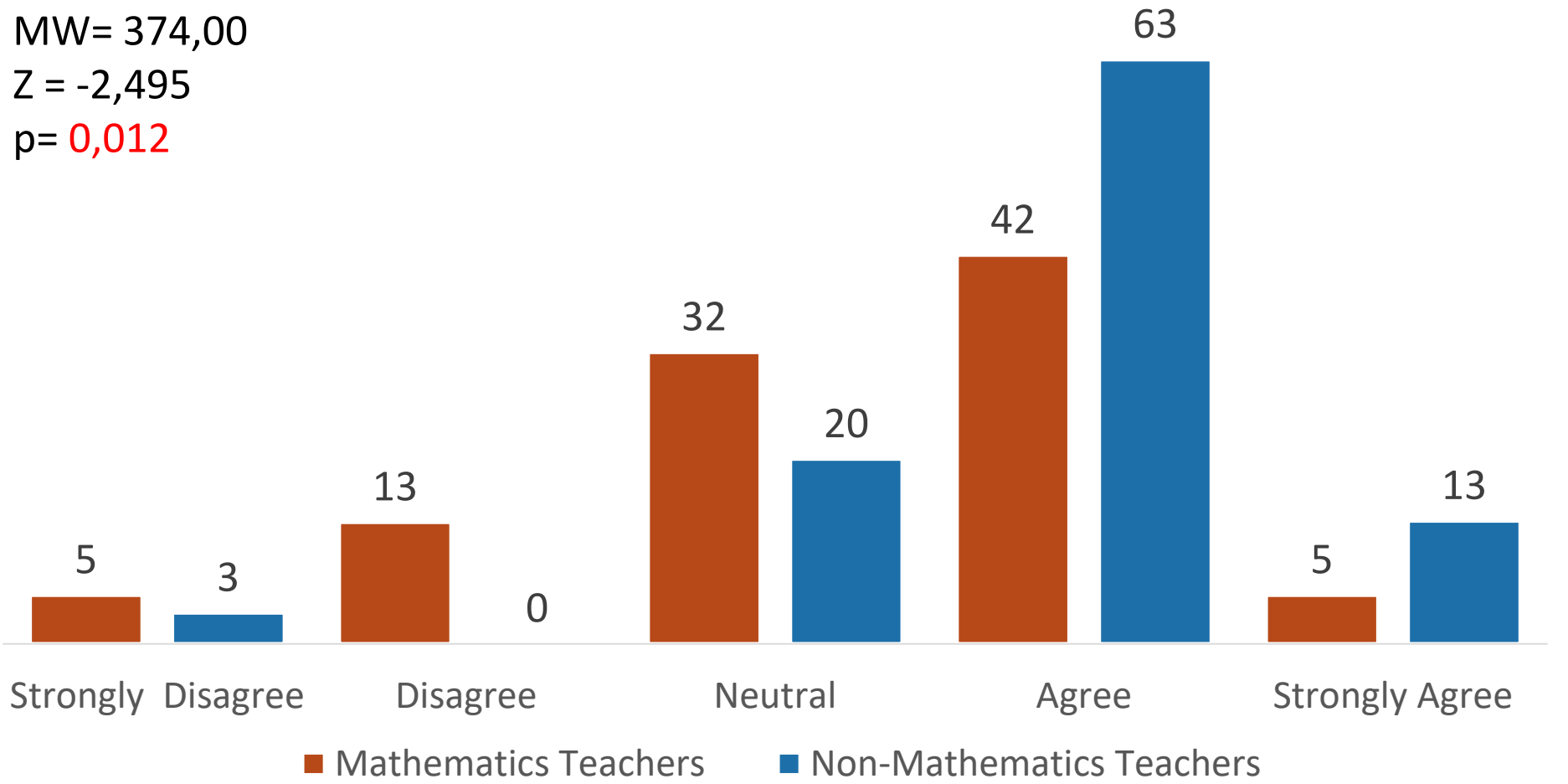
Z = -2,135

p= 0,034



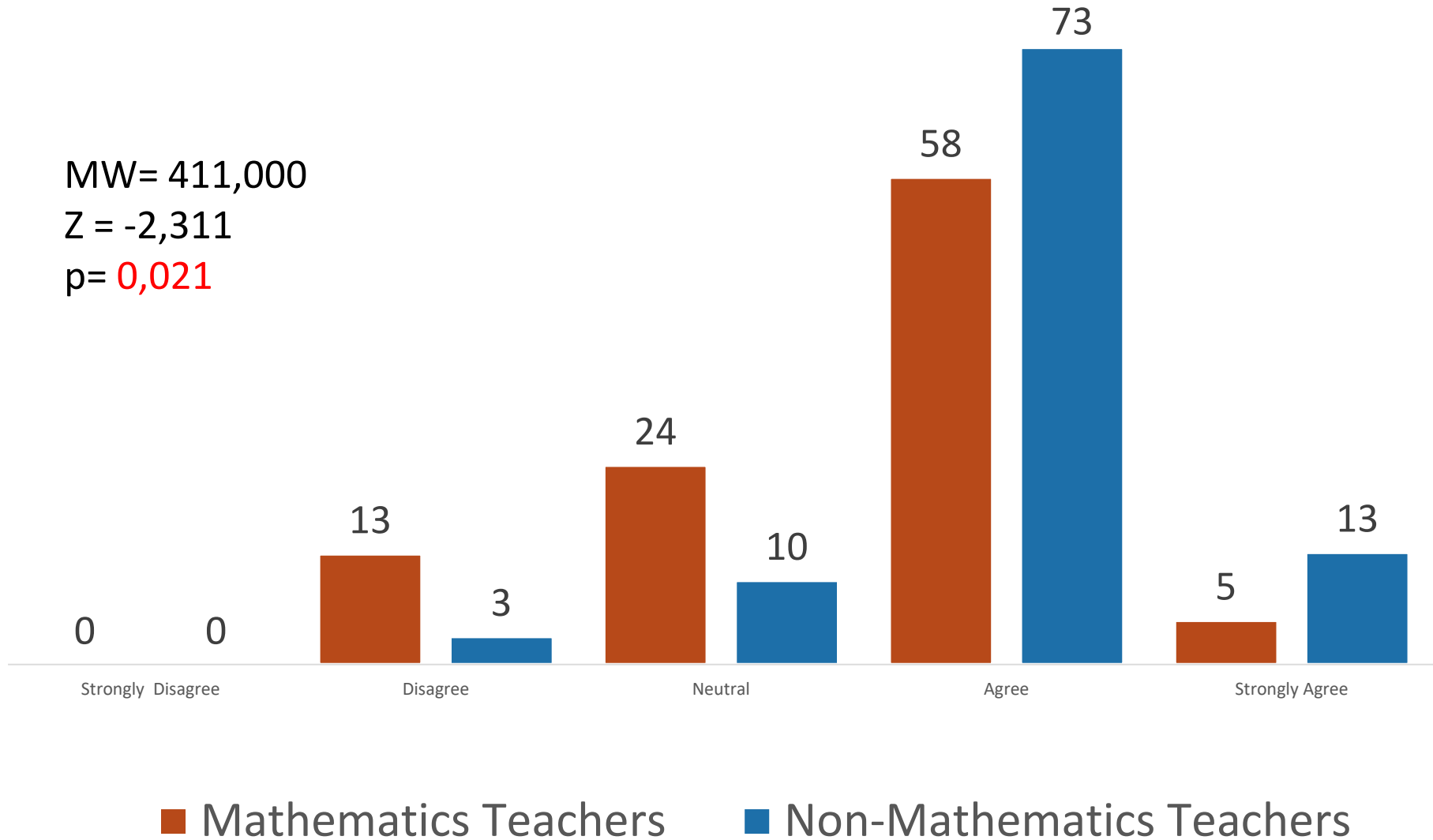


# Teachers Knowledge of ICT Applications for Diverse Learner Needs (in %)



# Choosing Effective Technology that enhances student learning (in %)

MW= 411,000  
Z = -2,311  
p= 0,021

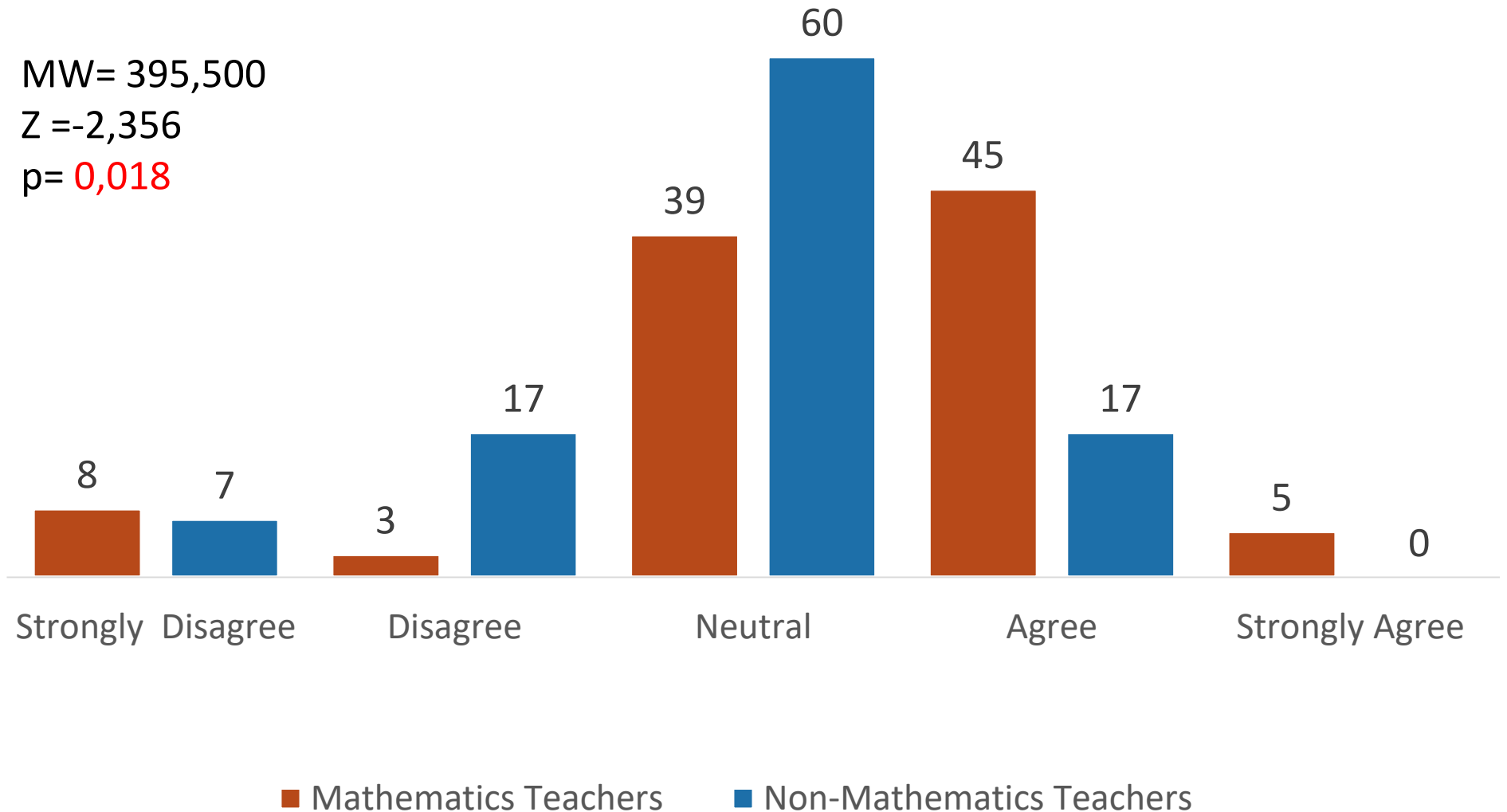


# ICT tools enhance learner engagement and understanding (in %)

MW= 395,500

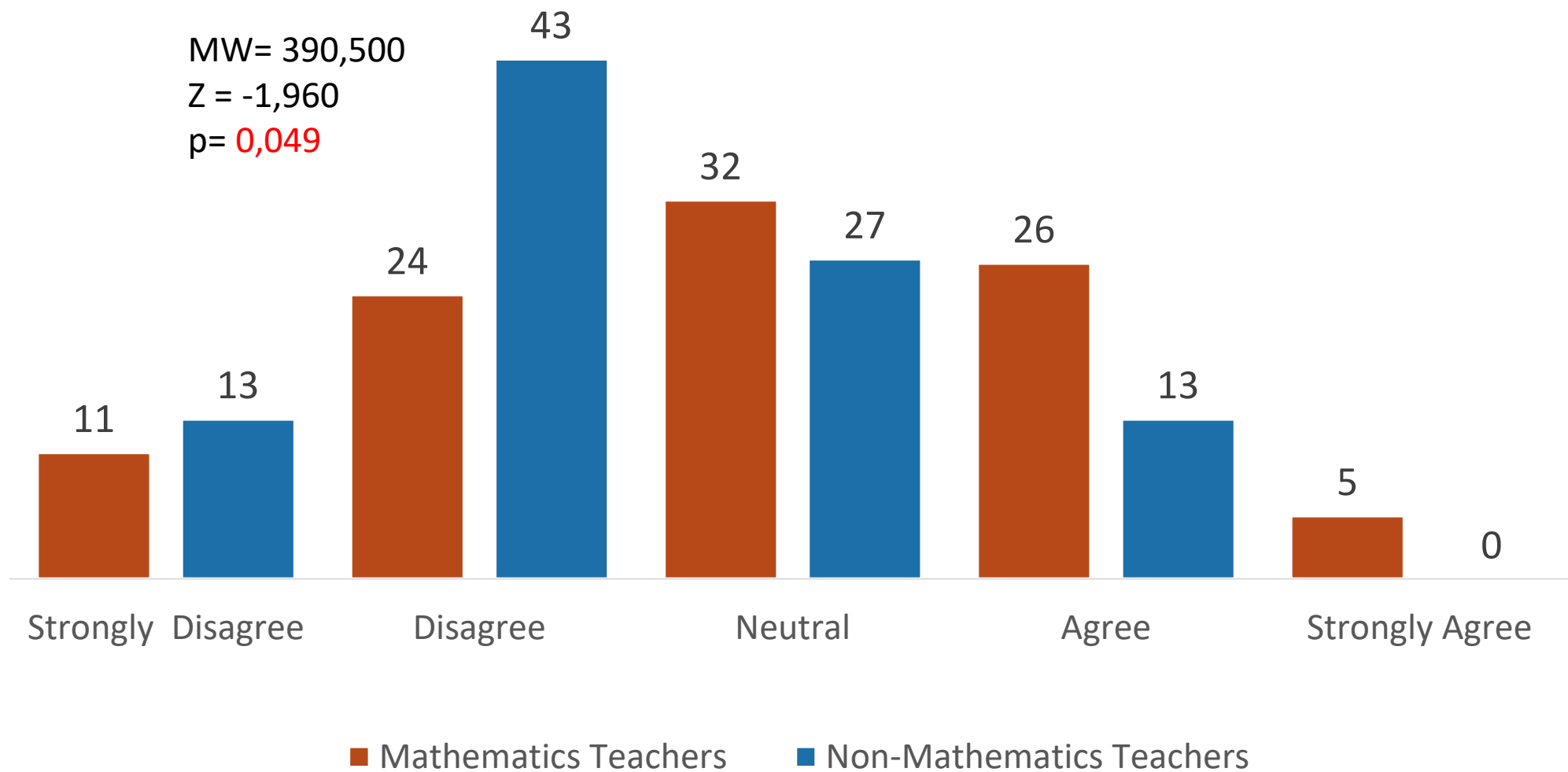
Z =-2,356

p= 0,018

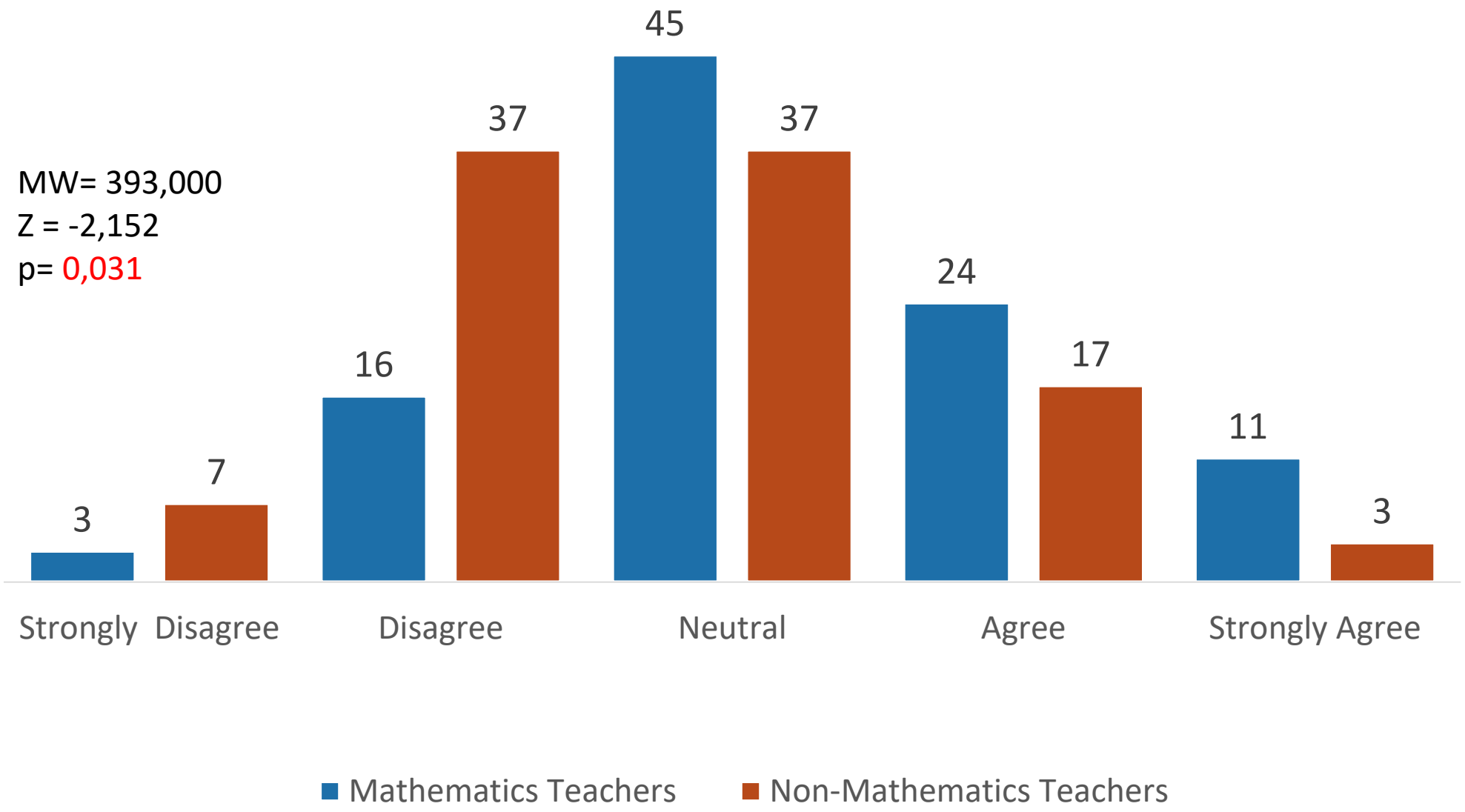


# Inadequate Technical Skills to use ICT to its full potential (in %)

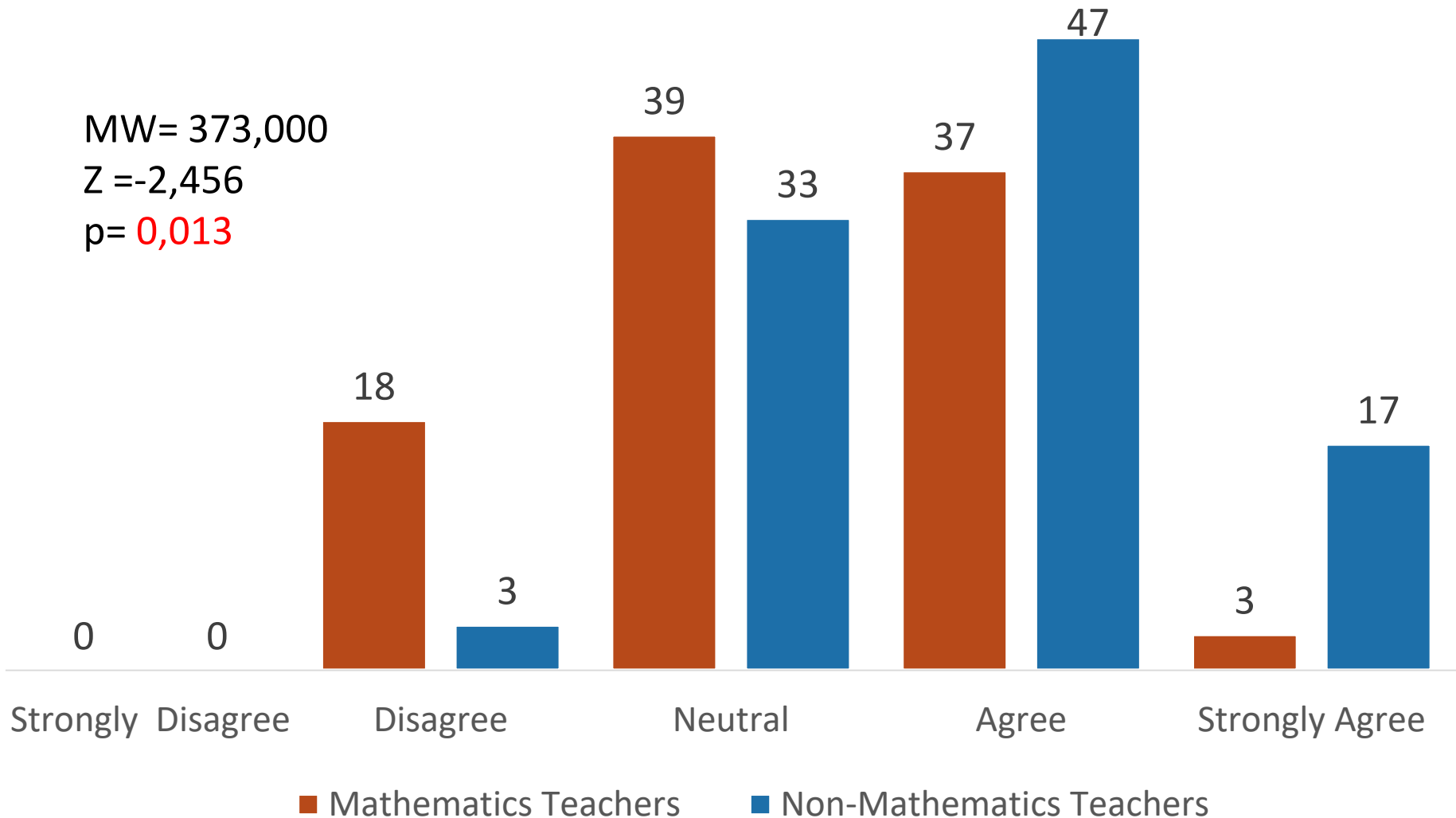
MW= 390,500  
Z = -1,960  
p= 0,049



# Inadequate access to quality resources to support ICT integration (in %)



# Resistance to Change to embrace and adopt ICT (in %)



# Discussion

Teachers' ICT self-efficacy varies by subject

Maths teachers face greater challenges in ICT adoption

Need for tailored ICT training for maths teachers

Schools should develop supportive ICT policies

Design interventions to enhance teachers' technical skills

# Summary

#ICTinEd: South African mathematics teachers face greater challenges in integrating technology than their non-mathematics peers, highlighting the need for specialised ICT training in mathematical sciences. #DigitalDivide #TeacherTraining #MathEducation

