Teaching for Inclusion

What can we all do to support women students?

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Students in Informatics
Attainment in Informatics by gender - UG

Orange = Male
Attainment in Informatics by gender - PGT

Orange = Male
Teaching for inclusion – engagement principles

• Make it matter
• Build Student Confidence & Professional Identity
• Grow an inclusive community
• See tagged materials at https://www.ncwit.org/engagement-practices-framework
Underlying Principle: Make it matter

• Use meaningful and relevant content
• Make interdisciplinary connections to CS
• Address misconceptions about the field of CS (e.g. https://teachinglondoncomputing.org/celebrating-diversity-in-computing/)
• Incorporate student choice
Underlying Principle: Build Student Confidence & Professional Identity

• Give effective encouragement
  – Praise effort
  – “I have high standards and I know you can meet them if you work hard”
  – Make it OK to make mistakes

• Offer student centred assessment
  – Frequent feedback
  – Help students interpret results of assessment
  – High performing students need to understand their performance as much as struggling students
  – Encourage students to seek help and be responsive when they do

• Mitigate stereotype threat
• Provide opportunities for interaction with faculty
Underlying Principle: Grow an inclusive community

• Avoid stereotypes
• Use well structured collaborative learning
  – Paired programming
  – Peer instruction with MCQs
  – Process oriented guided inquiry learning (POGIL)
• Encourage student interaction
Being a male ally - tips for getting started (1)

Adapted tips from https://www.ncwit.org/resources/start-small-start-now-seven-bias-interrupters-male-allies-or-anyone-really-can-start-usi-0#Top

Interrupt “fixed mindset” talk

• Listen out for students talking in terms of “natural talent”, “born leader”, “either you can do this or you can’t”
• Encourage students to take a step back and consider whether these comments reflect a historical bias
• When giving feedback, frame mistakes as opportunity for learning, not a sign of inadequacy
• Question whether you (or the students) might be confusing prior experience with ability
Being a male ally - tips for getting started (2)

Talk to other potential allies (male colleagues/students)

• Talk about the kinds of challenges underrepresented groups encounter in IT.
• Share a research finding you found interesting or a solution you or others have tried.
• If someone makes a mistake or says something problematic, always assume best intentions
• If you are afraid of making a mistake or are corrected for making a mistake, do not take it personally. Express an interest in understanding more and in improving your approach in the future.
Being a male ally - tips for getting started (3)

Facilitating more equal discussions (e.g. in student groups or tutorials)

• Solicit the opinion of quieter students during the meeting or after the fact

• Implement practices that give everyone a chance to think ahead of time

• Intervene when someone is being interrupted or not getting credit. Simply commenting along the lines of, “I think _____ was trying to comment a second ago” or “Let’s let ______ finish”
Further reading

• http://csteachingtips.org
• Interrupting Bias  www.ncwit.org/biasacademic,
• Critical Listening Guide  www.ncwit.org/criticallistening
• Microaggressions! game by Colleen Lewis
• https://womenandtech.indiana.edu/get-involved/faculty-affiliates/faculty-resources.html (scroll to the bottom of the page)