

Four Recommendations for Maximizing the Effectiveness of STEM Role Models



Portray role models as competent and successful.

However, portraying extreme levels of role model competence or success can backfire, demotivating students.

Although it may be tempting to make the role model seem like a super (wo)man in terms of what they have achieved, more is not always better in this respect because students may conclude "I could never do all that" and look elsewhere for a career.



Portray role models as meaningfully similar to the students.

Although the fact that the role model belongs to the same social group as they do may in and of itself be motivating to some students, a role model's motivational effects can be broadened by highlighting other ways in which the model is similar to students (e.g., the model worked hard for their success rather than being effortlessly brilliant; the model likes to do "regular person" things in their spare time).

Asking students to reflect on similarities to the role model might help as well.



Prioritize exposing students to role models from groups that are traditionally underrepresented in STEM.

Doing so is important especially in cases where only a small number of role models can be presented.

Models from underrepresented groups are likely to have the broadest positive effects on students, regardless of students' own social identities.

To avoid imposing an additional burden on scientists from underrepresented groups, they could be introduced to students via videos or printed materials (rather than live), because these materials can be presented to large numbers of students without any additional effort on the role model's part and are at least as effective as live interactions.



Portray role models' success as attainable.

To the fullest extent possible, information should accompany the exposure to the role model that makes it clear how the students could also achieve what the model has achieved.

Perhaps the greatest risk of demotivating students arises when a role model's career success seems unattainable to students.

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