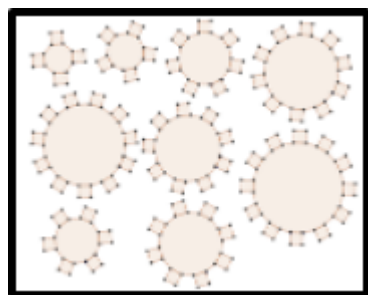# How an understanding of status can improve your teaching

Have you ever been in a situation where your ideas were overlooked? Consider the following exchange.

Context: Four students are working to figure out which gears work together without the spokes bumping into each other. Below, a conversation ensues.

Transcribed from the Counting Cogs Video

Libby: Now, what works? Read me what works.

Nigel: Six plus four, five-plus eleven…. six plus ten

Libby: What don't work?

Nigel: Six plus …Can you check just to make sure?

Christian: Five and four work. Seven and eight don't work. I tested it

Nigel: Nine and six, it looks like it doesn't work

Libby: Nine and Six

Nigel: Yes. Nine and six it looks like it's a failure

Kate: What we got to check now is to see if there is any patterns between the ones that don't work and the ones that do work.

Christian: Four and ten don't work.

Nigel: Four and ten don't work.

Libby: Ok, we need to try and work out why some of these work and don't work.

Christian: Has anybody tried four and twelve?

Kate: UGH

Christian: Nobody has tried four. Has anybody tried four and twelve?

Nigel: I don't think that works. Four is a multiple of twelve so, hang on. Is six a multiple of four? No. Is eleven a multiple of twelve? Is nine?

———————————

Notice that in this exchange, the calling out of number pairs continues after Kate suggests their group look for patterns. Kate speaks much less than her group mates, and her contributions are not acknowledged in this section of the transcript. While these actions are subtle and may be difficult to identify, there are noticeable differences in participation among these students. Part of our work with teachers is helping them distinguish whether participation differences stem from status rather than a lack of clarity or understanding.

Why should I learn about status?

In *Strength in Numbers: Collaborative Learning in Secondary Mathematics,* Horn states, "status is the perception of students' academic capability and social desirability" (2012, p. 21). Using this characterization of status, it appears as if Nigel and Libby have the highest status in the group. Each of their exchanges drives the direction of the conversation. They are the ones asking the majority of the questions, sharing their reasoning, and disagreeing with or confirming others' contributions. Horn suggests that students with higher academic and social status have more opportunities to engage in deep learning in their classes. In this short conversation, Nigel, Libby, and Christian seem to be the ones confirming whether the pair works or doesn't work. The doing of mathematics happens when confirming the answers and sharing the reasoning. These learning opportunities don't happen in group settings if a student's reasoning is not elicited or valued by their peers. We posit that teachers need to recognize status imbalances to increase status among the students in their classrooms. As status is a perceived belief that can evolve (Ridgeway & Markus, 2022), teachers can influence and enhance the academic and social status of students in their classrooms.

One way our teachers learn about status

As educators, we know that telling and observing are not the best ways for learners to develop deep understanding. As professional development providers, we support teachers in thinking deeply about status by reflecting on their identities as teachers and learners. In the reflection activity shown below, teachers are asked to describe their engagement during two group activities and use that data to determine what their status in the learning community might be. In addition, we asked them to graph their societal status in addition to their academic and social status because we understand that a person's social and academic standing is influenced by societal norms and systems. Engaging in this activity helps teachers think more deeply about what their perceived status might be and what data points they are using to inform their perceptions of themselves and others.

What parts of myself do I choose to bring to different learning spaces and why?

[5 min] Individually reflect on the ways you participated and the ways that you might have disengaged in the tasks below.

| Task	The ways I participated	The ways I did not engage
Today's Check in		
Today's Data Task		

Status: how competent you feel and how others perceive you to be

> Social: Perceived proximity to what is socially desirable in specific circles/circumstances
> Societal: Perceived proximity to what is acceptable/desirable in dominant culture
> Academic: Perceived proximity to academic expectations and achievement

[10 min] Using the diagram at your table. Graph your perceived status while engaging in the Data Task
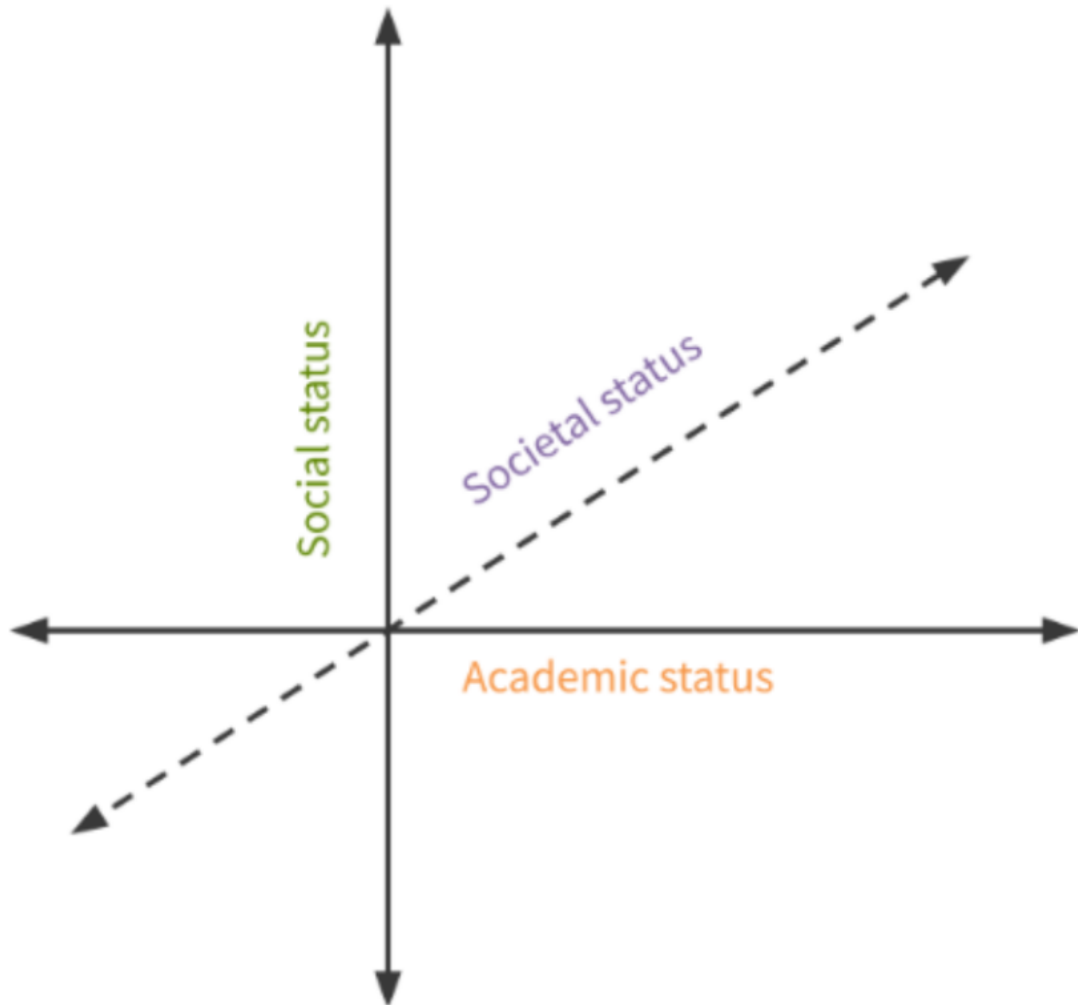
Once teachers can identify specific data points that might indicate status imbalances in groups, both based on their own and others' reflections on engagement, they may be more able to recognize and address these issues in their classroom.

So, let's return to the original scenario and consider Kate. If a teacher recognizes the status imbalance in the group, they may be able to elevate Kate's status by encouraging other students to engage with her reasoning. Alternatively, the teacher could repeat Kate's statement, "What we got to check now is to see if there is any patterns between the ones that don't work and the ones that do work," and share with the group how addressing Kate's statement would move the work forward.

Each of these moves assigns competence to Kate and can increase her status. When we can address status imbalances among our students we can promote a

classroom where all students are viewed and treated like active members of the learning community. When learner status is reinforced by others in the learning community, all students are more likely to take risks in class by sharing their thinking and reasoning, asking questions, and disagreeing with others. As teachers, there are data points that let us know who students view as high or low status. We have less insight into student's views of themselves. Inviting your students to share their perceptions of their status can help you learn how they view themselves and what strategies could be employed to increase their self-perceptions; an important part of developing an identity as a doer of math and science.

References

Horn, I. S. (2012). *Strength in numbers: Collaborative Learning in Secondary Mathematics.* National Council of Teachers of Mathematics.

Ridgeway, C. L., & Markus, H. R. (2022). The Significance of Status: What It Is and How It Shapes Inequality. RSF: *The Russell Sage Foundation Journal of the Social Sciences*, *8*(7), 1–25.