### Facilitating Productive Struggle

**FIRST: Understand the learner’s idea and the learner’s point of struggle**

Use **Eliciting Moves** to draw the learner’s idea out.
- Invite learners to share their thinking (e.g. “What’s your idea?”, “How are you thinking about it?”, “Where are you stuck?”)

Use **Clarifying Moves** to deepen your understanding of their idea or their struggle.
- Ask learners to elaborate (e.g. “Can you say more about that?”)
- Re-voice learner thinking and verify (e.g. “So, I think what you’re saying is ___________. Did I understand your idea right?”)
- Ask about ambiguous phrases or vocabulary (e.g. “When you say, *subtract it*, what is the *it* you are talking about?” or “What do you mean when you say *the bigger one*?”)

Use **Igniting Moves** if your learner cannot get started or articulate an idea.
- Offer support (e.g. “Would you like a hand getting started?”, “It can be tricky to figure out how to get going. I’d be happy to help you.”)
- Draw out prior knowledge (e.g. “Tell me everything you know about squares”)
- Bring attention to key information (e.g. “Let’s read through the problem again together.”, “What do you know?”, “What are you trying to figure out?”)
- Prompt articulation of a sticking point (e.g. “What’s confusing right now?”, “Is there something you don’t know/understand that you need to know/understand?”)
## Facilitating Productive Struggle

### THEN: Help the learner to move forward with *their* idea.

Use **Sustaining Moves** to extend your learner’s reasoning or logic.

- Echo key ideas already articulated (e.g. “You said 2 and 8 are like ‘ten partners’.”, “Looks like you figured out that even numbers won’t work.”)
- Use the learner’s own language to ask them to apply their thinking (e.g. “I heard you say you can ‘double one & half the other’. Can you use that thinking to help you here?”)
- Draw attention to next steps (e.g. “What would be helpful to know next?, “You figured out how many times 2 will fit into 10. What do you need to do now?”)
- Assign a job (e.g. “Try finding the next figure in the pattern.”, “Explain your idea to Joe.”)
- Give a new challenge to someone who is “done” (e.g. “It looks like you found a lot of examples with two addends. Can you think of any with three addends that will work?”, “What would happen if the square was bigger? I’ll be back to see what you’ve figured out.”)

Use **Supporting Moves** to help account for gaps in learning or persistent trouble moving forward strategically.

- Tell the learner a fact they need to know but don’t seem to have handy (e.g. “In this case, parenthesis indicates multiplication”; “There are about 2.5 centimeters in every inch.”)
  **NOTE:** only use this for background information—not for the “meat” of the problem being solved.
- Offer a simpler version of the same task (e.g. “What if we think about how many hands are under the table first, instead of the number of fingers?”)
- Suggest a tool to relieve unnecessary cognitive load (e.g. “Why don’t you use a calculator?”, “Would counters help you to keep track?”)
Facilitating Productive Struggle

**THEN: Help the learner to move forward with *their* idea. (Cont’d)**

Use **Pressing Moves** to surface breaks in logic or misconceptions/oversights/over-generalizations in your learner’s thinking.

- Wonder about situations not yet considered (e.g. “I wonder what would happen if you used a negative number.”, “I wonder if this will always work.”)
- Notice breaks in logic (e.g. “It looks like you were first converting everything to fourths but then you changed to fifths”, “I notice this group is bigger.”)
- Ask a question meant to surface an error/misconception (e.g. “Are these the same or different?”, “What *would* two fifths be, in terms of tenths?”)

Use **Consolidating Moves** to advance work towards a more complete solution.

- Draw attention to missing bits of solution or logic (e.g. “Which factors have you checked for and which still need to be tried?”, “If you want to be sure you have them all, what do you need to do?”)
- Prompt connections between work and the task (e.g. “So, have you figured out which plan he should choose?”, “Based on the towers you built, what are all the ways you could make ten?”)
- Suggest synthesis (e.g. “It looks like you have done all the hard thinking needed. Why don’t you put it together and try to answer the original question?”, “How would you convince someone that your answer is correct?”)