INCREASING DIVERSITY IN IT

Pair Programming | 10 Tips

How to Teach and Support Pair Programming in your Middle and High School Classroom

Pair programming is when two people work on a computer together, each with a different role. One is the "Driver" who controls the mouse and keyboard and one is the "Navigator" who helps direct the driver. They complete programming tasks together, rotating roles regularly.

1 Friendship matters.

Consider letting **students choose their own partners.** This is especially effective if working with a group in which retention is an issue.

2 Make it visible.

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Create a poster of what effective pair programming looks like by brainstorming as a group. Refer to it throughout.

3 Play it out.

Use a **ROLE PLAY** to model what effective and ineffective pair programming looks like.

4 Creative cooperation.

Let students create their own versions of **Navigator** and **Driver** roles. Sometimes one types and the other manipulates the mouse. All behaviors are okay as long as they are respectful and both partners are engaged.

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5 **Pair programmers of the week.**
Acknowledge specific pairs in front of whole group.
Note specific effective pair programming behaviors
and give out small **PRIZES**.

6 **Beyond the computer.**
Do off-the-computer activities for partners to
practice clear communication
and listening skills.

Team-building

7 **Dynamic duo.**
Remind students that with two people they can
generate twice as many ideas and
prevent twice as many mistakes.

8 **Step-back and step-in.** Encourage more
assertive students to "step-back" in the pair to **listen and
respond** to their partner. Encourage less assertive students
to "step-in" by **talking about their ideas** and helping
solve programming challenges.

9 **Switch resistance.**
If pairs resist switching roles, give them more structure by
setting up a timer to help them **remember when to switch**.

10 **Go team!**
Emphasize teamwork and communication. When you hear
pronouns like "I" and "my" being used by a partner, remind
them of "**we**" and "**us**."