

Lego Communication Exercise

Prep-time: 1 hour

Activity time: 1 hour

Observation: Humans communicate through many channels. Not only are words important, but tone, gestures and facial expression are necessary to understand the message. Even if some information is missing, humans can fill in the gaps to effectively communicate. However, computer programming requires exact instructions to accomplish tasks. Students are familiar with computers, but are often intimidated at the prospect of programming a computer. Computers follow exact instructions, therefore learning how to give and follow clear instructions is necessary when learning how to program a computer.

Theory: By restricting the communication between students to only written commands, students will learn the importance of how to give and receive precise instructions.

Set-up and Materials (for each group of students):

1. Two bags of assorted Legos, each with 10 identical pieces.
2. Notepad

Activity: Students will break into groups of four, each group having a notepad and two bags of Legos, each with 10 identical pieces.

1. One student is asked to leave the group of four.
2. The remaining three students assemble a structure out of Legos, being careful to write down the exact steps to construct/replicate their structure.
3. The first Lego structure is hidden, as the first student is asked to return to the group.
4. The first student then attempts to replicate the Lego structure based only on the written instructions.
5. Students switch roles and repeat as time allows.

Outcomes: Students learn how difficult it can be to give clear instructions to accomplish a goal. This is a helpful lesson when learning how to program a computer, and to work with peers in programming.