

Demo: Creating a Gauge Study Worksheet

To design a measurement system study in JMP, we'll use a script called Gauge Study Design.jsl. This script is in your course data, and a variation of this script is also available in the File Exchange on the JMP User Community.

We'll design a study with three inspectors measuring 10 parts.

We have each inspector measure each part twice, so Repeat will be the first factor.

We rename Factor 1 Repeat and enter 2 for the number of levels.

We add another factor, change the name of this factor to Inspector, and enter 3 for the number of levels.

We add one more factor. We rename this factor Part and enter 10 for the number of levels.

We will present the parts to the inspectors in a random order, so we check the Randomize? box next to Part.

We will also have the inspectors measure the parts in a random order, so we randomize the Inspectors.

We won't randomize Repeat, since the first measurement for all inspectors on all parts will take place before the second set of measurements.

To create the gauge study worksheet, we click Create Worksheet.

The worksheet shows each inspector in random order measuring all 10 parts in a random order twice.

This is what we call a crossed design, because each inspector measures every part.

We save this file and use this worksheet when we conduct the measurement system study.