Paper Organizers International: A Fictitious Six-Sigma Green Belt **Case Study**

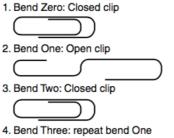
- Part 3 -

1. Analysis

1.1. Is the problem real?

Aviso: En este momento, nos centraremos <u>únicamente</u> en la característica de Durabilidad

The six-sigma team decided to perform a study regarding the durability of paper clips to find out whether the managers and workers claims were accurate. In order to make the study repeatable, the tem developed some rules to measure durability, shown in Fig. 1.



- 5. Bend Four: repeat bend Two
- 6. Bend ?: repeat until break
- 7. Count number of successful bends. Do not count the bend the break occurs on.

Fig. 1. How durability should be measured

The six-sigma team collected a sample of 10 clips of each of the types indicated below, and measured durability as indicated in Fig. 1.

- Large, metal clips.
- Small, metal clips.
- Small, plastic coated clips.

Se pide:

- Realizar el estudio
- Confeccionar estadísticos descriptivos por tipo de clip, así como diagramas box-plot
- ¿Qué porcentaje de clips no cumplen las condiciones de durabilidad (que aguanten al menos 8 doblados)? Recalcule los "expected savings" en función de estos nuevos datos.

Asimismo, se pide (parte opcional, a realizar con SPSS):

¿Existen diferencias entre tipos de clips en lo que respecta a su durabilidad?