

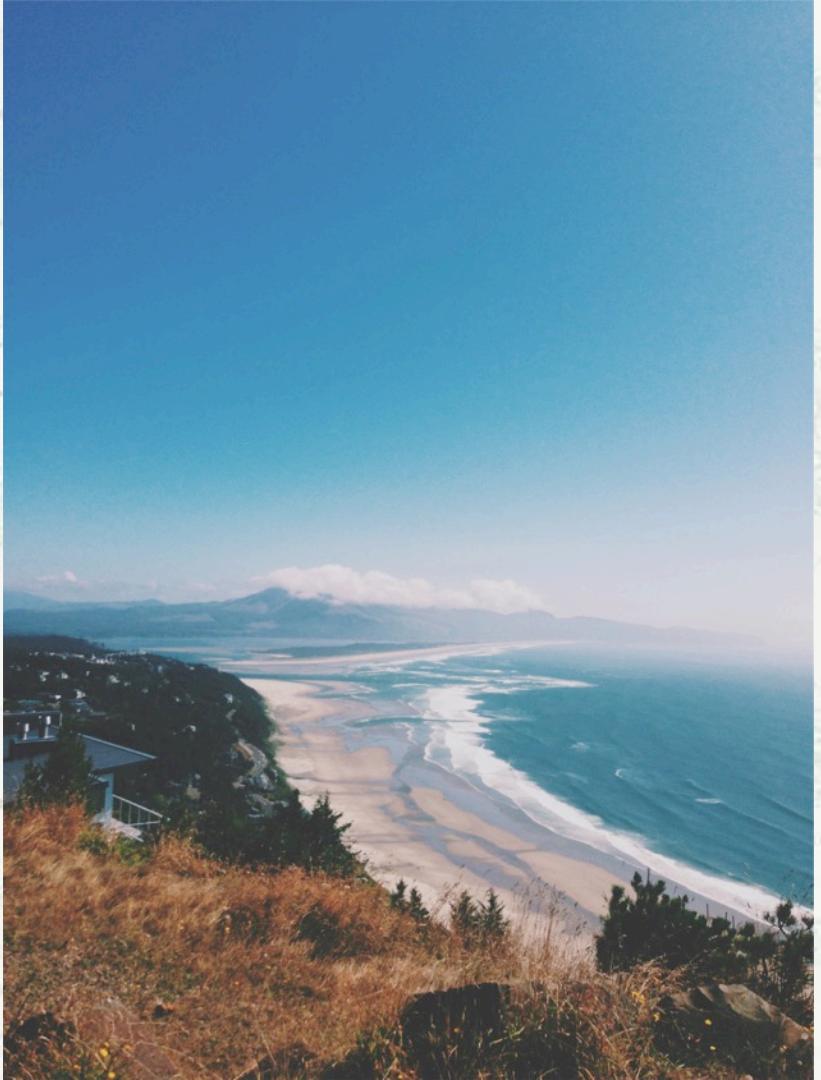


ASQ CRE Prep course

Lesson III. A. 7. c.

Design of Experiments

Language of DOE



Factors – independent variables (input variables)



**Levels –value at
which the
factors are set**



**Effects or
response-
dependent
variables
(output
variables)**

Interaction– influence of the variation of one factor on the results obtained by varying another factor



Main effects – the results or change of output caused by changing an input





Controllable Factors

- we can set and hold these**

A photograph of two seagulls in flight against a clear, pale blue sky. The seagull in the foreground is captured from a low angle, its white body and wings spread wide, with dark brown feathers on the wingtips. Its red legs and beak are visible. Another seagull is flying higher and to the right in the background. The lighting suggests a bright, possibly late afternoon or early morning sun.

Uncontrollable Factors
– they just vary as they
will

**Noise- effect of
all the
uncontrollable
factors**



Not really
different than
any experiment?



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Design of Experiments

Only the Right Experiments