

SNV Homework 3
S2163004
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Goal: Clarify practical difficulties in making an object model on dimension reduction
Form: Experiment

Motivation

The trail experiment:

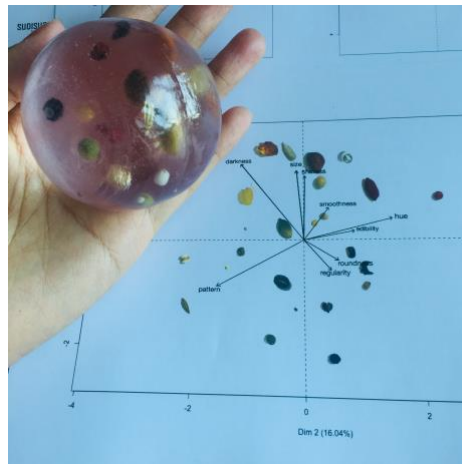
For homework 2 I made a proposal about using an object to introduce dimension reduction analysis to people. I expected there can be some practical difficulties of making this object. However, I couldn't specify them in the proposal due to my limited experience. It wasn't a problem for me until we need to decide our topic for the final homework. On one hand I doubted about using my proposal because it seems hardly promising in one week's time for try and error. On the other hand, I didn't want to interpret "having a working goal" as "making feasible things work".

In the end I decided that my purpose in this course is to try and learn instead of making things confidentially work. Therefore, I decided to take the challenge, focusing on the trail experiment itself instead of worrying too much about the outcome.

The experience session:

After doing the trail, the product turned out to be not perfect, but way better than I expected. I started to wonder how different people would react on it. So, I planned to find some random participants from the Lipsius humanities building to try applying the product.

Results:



Main difficulties I clarified:

- It difficult to design the principle components because each component uses all the input attributes (features).
- Difficult to work with resin art (position precision; long curing time; sanding and polishing)
- People actually have more difficulties in seeing attributes as dimensions (than the concept of reducing them)

My experiment notes for each step are zipped in the supplementary file. They will also be available online for people who want to make utilization or improvement.