

## Cluster Analysis Masterclass

A one day workshop looking at all aspects of cluster analysis applied to consumer test data

Course Developed and Written by Anne Hasted

Presented by Anne Hasted, Qi Statistics Ltd  
**3 June 2020**

Venue:

**Leonardo Hotel, Heathrow  
Bath Rd, Sipson, West Drayton UB7 0DP**

### Workshop Summary

Cluster analysis of consumer data is a widely used technique to identify groups of consumers with different liking/preference patterns to help optimise product portfolios. This one day workshop compares and contrasts the three main methods available. Proposes a simple method of cluster trimming to identify consumers who are not well fitted in their allocated clusters, either outliers, flat liners or random scorers (often 20%-30% reported in literature). We will also look at options for cost saving using incomplete sample allocations. The workshop will be run with XLSTAT software.

### Workshop Outline

- Review of the three main clustering algorithms (AHC, KMEANS, LATENT CLASS) – advice on which to use and which XLSTAT settings.
- Using AHC and KMEANS together
- Cluster Validation
- Simple cluster trimming
- Demographic analysis – using nested ANOVA and CHAID
- Incomplete Designs – are they possible? What do we need to consider?

## Software

We will be running the workshop using XLSTAT – you will need to bring your laptop with XLSTAT (BASIC) loaded, if you do not licence the software you can download a trial version shortly before the training. We will also be demonstrating XLSTAT Latent Class- so if you want to join in with this you will need to request a trial version, if you do not already licence the software.

## The Trainer

Anne Hasted began her career as an academic statistician at Reading University. She is the founder and now senior consultant at Qi Statistics Ltd, a UK based consultancy, offering statistical training and support to research and industry. She has many years training and consultancy experience in the food industry, particularly in the areas of consumer and sensory research and is well recognised for providing user friendly training courses

## Course Schedule

3 <sup>rd</sup> June	
10.30-11.30	Introductions. Review of the three key cluster algorithms (AHC, KMEANS, LATENT CLASS). How they work, which settings to use, data preprocessing
9.30-13.00	Using AHC and KMEANS together. Cluster Trimming of liking clusters using Correlation.
13.00-13.45	<i>Lunch</i>
13.45-15.00	Validating clusters using Discriminant analysis (DA). Are there demographic differences?- investigation using nested ANOVA and CHAID
15.00-15.15	<i>Tea</i>
15.15-16.30	Clustering using incomplete data – how incomplete can we be? Two methods of analysing the data using XLSTAT. Nipals PCA and Latent Class Regression
16.30	Close

## Training Facility

The Leonardo Hotel is the ideal traveller's hotel. Offering easy access to and from the airport terminals in just a few minutes using the handy Hoppa bus. If you require accommodation at the hotel, have a look at the rooms available using this link <https://www.leonardohotels.co.uk/hotels/london/leonardo-hotel-london-heathrow-airport/rooms>

## Pricing and Fees\*

Registration Fee - Course attendance	£575
XLSTAT Base + Sensory Module (1 year licence-commercial – discounted first year price)	£592

\*Payment may be made in £, \$ or Eu. The current exchange rate will be applied at the time of payment.

- Course fees reduced by 10% for members of academia
- Fees include folder of course material, fully licensed copy of SenPAQ, lunch each day and an optional course dinner.
- Discounts: We offer a 10% discount on registrations when two or more people from the same company register for the same course at the same time.

**Book online from this link:** <https://www.qistatistics.co.uk/product/cluster-masterclass-uk/>

**Refund policy:** Cancellation of registration can be made up to 30 days ahead, and return of payments, minus reasonable administrative expenses, will be made for these cancellations. Cancellations within 15 to 30 days of the course start will receive a credit for a future course. Registrants who fail to attend or cancel less than 15 days prior to the seminar start date are responsible for the entire fee. Substitution of another person for the same course may be made at any time.

**Course Cancellation:** Qi Statistics Ltd retains the right to cancel the course 30 days before the start date if less than 4 delegates have registered by that date. Please do not book your travel before this.

**For further information or questions contact:  
Qi Statistics Ltd at [www.qistatistics.co.uk](http://www.qistatistics.co.uk) or telephone +44 (0)7708700503**