



## Chapter 9: Hypothesis Testing

### Assignment

The data associated with this chapter is the database you were asked to set up in chapter 3. If you did not do that exercise the data is reproduced in *comma separated variable* format so you can import it into a spreadsheet or database. You may need to convert it into an Excel, rtf or dbf file before importing it into SPSS.

### Description of the Data

The data is a small extract from a survey of Access and mature undergraduates. It includes basic descriptives of the sample group and their responses to one question on how they feel as a result of their educational experience. From this data, a derived field is also included that provides a satisfaction scale.

### Coding Frame

<i>Question</i>	<i>Variable Name &amp; Type</i>	<i>Response &amp; Code</i>						
1. <i>FORMA was not a question but a means of distinguishing between Access and mature undergraduate students</i>	FORMA (dichotomy)	1 = Access 0 = Undergraduate						
2. <i>Respondents age last birthday</i>	AGE (interval)	Age in years 999 = no response						
3. <i>Gender</i>	GENDER (dichotomy)	1 = male 2 = female 9 = no response						
4. <i>This question was concerned with how respondents felt as a result of their educational experience. It is a semantic differential question using the following pairs of words.</i>								
• Encouraged – Discouraged	ENCOUR	1	2	3	4	5	6	7
• Positive – Negative	POSITIVE	very	fairly	slightly	neither	slightly	fairly	very
• Contented – Discontented	CONT	99 = no response (Ordinal)						
• Challenged – Under-challenged	CHALL							
• Involved – Isolated	INVOLVE							
• Valued – Under-valued	VALUED							
• Optimistic - Pessimistic	OPTIMISM							
5. <i>This variable was derived by aggregating the responses to the items in question 4</i>	SATIS	Actual aggregated value.  999 = no value calculated because one or more items in question 4 were not responded to.  (Interval by aggregating ordinal data)						

### **Suggested Approach**

Tackle data analysis in a systematic way. There is quite a lot of data here and the best approach is not to use a haphazard 'let's look at it all' approach, but to ask fundamental questions and interrogate the data to see if the answers lie there. For example:

1. Is the mean satisfaction level of Access students statistically significantly higher than that of the undergraduates?
2. Are there significant differences to be found between male and female respondents?
3. Is the gender balance statistically significant? Is this the same for both Access and undergraduate respondents?