**Mathematics Learning Support Centre**

# SPSS handout 3:    Grouping and Recoding Variables

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# 1    Introduction

Recoding may be needed in a number of different situtions:

- To categorise a continuous variable. For example, you may have measured people's BMI (body mass index) as a continuous variable but may want to use it to create groups such as underweight, normal, overweight, obese.

- You may have a categorical variable but want to combine some of the categories — for example, if you've ended up with categories with very few observations in them.

- To reverse the coding for a particular variable. For example, the response to a particular question may have been measured on a 5-point scale and you might want to reverse the coding so that 1 becomes 5, and so on.

# 2    Categorising a continuous variable

1    Choose **Transform**, **Recode**, **Into Different Variables**.
2    Put the variable you want to recode in the **Input Variable** → **Output Variable** box.
    In the **Output Variable** box, type in a name for the new (grouped) variable. For example, if you are grouping BMI you might use the name 'BMIgroup'. Click on **Change**.
3    Click on **Old and New Values**.
4    To define the first group, under **Old Value** click on **Range, LOWEST through value:** and, in the box below this, type in the upper limit for that group. For example, using the BMI example the lowest group (underweight) is a BMI below 18.5, so you would type 18.4 (or 18.49) into this box (this will depend on how many decimal places you have recorded BMI to). Now, under **New Value** select **Value** and type in the code for this group (i.e. 1 for the first group). Now click on **Add**.
5    To define the middle group(s), under **Old Value** click on **Range:** and, in the two boxes, type in the lower and upper limit for that group (e.g. 18.5 and 24.99 for 'normal' BMI). Define the code for this group as above and click on **Add**. Repeat for all groups apart from the last.
6    To define the last group, under **Old Value** click on **Range, value through HIGHEST:** and, in the box below this, type in the lower limit for this last group. For example, using the BMI example the last group (obese) is a BMI of 30 or higher, so you would type 30 into this box. Define the code for this group in the usual way and click on **Add**.
7    Finally click on **Continue** then **OK**.

# 3   Combining groups

This is done in a similar way to that described above. For example you might have eight age groups, coded from 1 to 8, and want to change them such that groups 1 and 2 were combined, 3 and 4 were combined, 5 remained as an group on its own and groups 6 to 8 were combined. You would do this as follows:

1   Follow steps 1 to 3 as above.
2   Use step 5 described above to combine groups. (in our example **Range** 1 through 2 would become new value 1, 3 through 4 would become new value 2, and 6 through 8 would become new value 4.
2   To simply recode one group (e.g. here we would want group 5 to become group 3), under **Old Value** select **Value** and the old code. Under **New Value** select **Value** and type in the corresponding new code. Click on **Add**. Repeat this above for all the single codes you want to change.
4   If there are any values you want kept the same (this would not apply in our example), then you need to specify this: under **Old Value** select **All other values** and under **New Value** select **Copy old value(s)**. Click on **Add**.
5   Click on **Continue** then **OK**.

# 4   Recoding a categorical or ordinal variable

Again, this is done in a similar way to that described above:

1   Follow steps 1 to 3 as previously.
2   Under **Old Value** select **Value** and enter one of the old codes. Under **New Value** select **Value** and type in the corresponding new code. Click on **Add**.
3   Repeat the above for all the codes you want to change.
4   If there are any values you want kept the same follow step 4 above.
5   Click on **Continue** then **OK**.

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**NOTE**
Once you have done any recoding / regrouping you may want to switch to variable view to (a) change your new variable so that it has no decimal places and (b) add value labels (e.g. so that 'Underweight, Normal, Overweight, and Obese' appear in tables and charts rather than the codes 1,2,3 and 4). See SPSS Handout 2 for how to add value labels.