

## Appendix 2

### The Three Cluster K Means Solution

The K MEANS Cluster solution for three clusters produced a strange dispersion of Welsh medium and English medium schools. The table below provides the evidence where, for example, 64% of Cluster Two schools ('Welsh medium') have Welsh Second Language classes. 'Welsh medium schools' number 1069, and English medium schools number 170. Despite 11 iterations reclassifying the three clusters, the K Means analysis does not provide a sensible solution and is therefore not considered further.

<b>3 CLUSTER SOLUTION: K MEANS</b>	<b>Bilingual Schools</b>	<b>'Welsh Medium' Schools</b>	<b>'English Medium' Schools</b>
%Teachers WELSH MEDIUM	60	32	1
%Teachers POTENTIAL WELSH	1	0	15
%PUPILS FLUENT in WELSH	5	19	1
%PUPILS NOT FLUENT in WELSH	35	26	26
%PUPILS with WELSH at HOME	15	17	2
%PUPILS TAUGHT WELSH AS L1	8	35	2
%CLASSES WELSH MAIN MEDIUM	2	36	2
%CLASSES WELSH PART MEDIUM	98	0	0
%CLASSES L2 WELSH	0	64	97
%WELSH GOVERNORS	42	32	9
<b>NUMBER OF SCHOOLS IN CLUSTER</b>	22*	1069	170

In comparison, the hierarchical cluster analysis produced a three cluster solution that is easy to interpret and is eminently preferable.