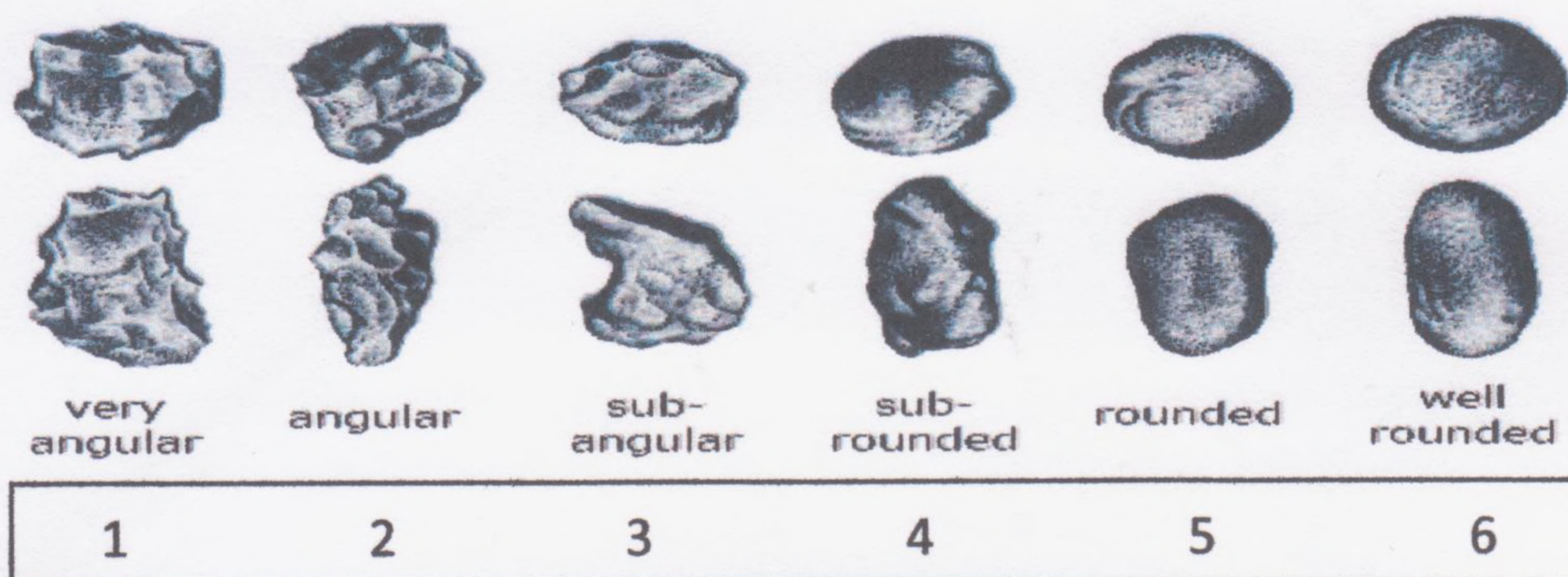


The bedload was measured using a random sample of 20 pebbles taken at each site. A random sample should mean that each item has an equal and independent chance of being chosen, so at each site the sample was chosen out of sight and with replacement. The long axis (the longest measurement possible) was taken using a 30 cm ruler in mm. This allowed the calculation of the average bedload size at each site to see if it reduced in a downstream direction due to attrition as the theory suggests.

The shape of each piece of bedload was assessed using the POWER's Scale which is a subjective scale from Very Angular (1) to Well Rounded (6)



Powers score is a subjective (by eye) measurement of roundness / angularity, or the degree that the pebble has sharp edges. If all 3 axes had been measured (long, intermediate, short) an accurate index of sphericity could have been calculated.

A sample size of 20 is quite small and unlikely to give an average that is representative of the total population of pebbles from which it is drawn. A sample size of 30 or more would give a much more representative value for the mean. A sample size of 20 does allow the drawing of a dispersion diagram which would allow the calculation of the mode and median values to support the mean. The use of calipers would have given more accuracy than the eye.

The dispersion diagram would also allow the measuring of the spread of the data, the degree of sorting at each site, by the calculation of upper and lower quartiles and the Inter Quartile Range

