Chapter 6

Evaluation of the systems As already introduced in Chapter 5, all criteria evaluations and the weights in a table (see Table. 6.1) and thus the Utility value of any alternative (see. 5.1).

Tab. 6.1: Utility analysis of the three measurement systems.

Criteria	Weighting	Pasco	Phywe	Vernier
Handling	5%	10	6.17	6.88
Battery Life	6%	10	10	10
Bluetooth range	7%	10	10	10
Resolution	7%	8.63	4	10
Measurement Uncertainty	3%	7.85	4.28	10
Measuring Range	10%	10	9.68	8.81
Sampling Rate	9%	9.42	8.58	10
Datalogging	3%	10	5	0
Requirements	7%	10	4.62	8
Supply	10%	3	10	7.5
Variety of presentations	10%	10	6.39	9.4
Calculated Sizes	8%	10	2	8
Data Sharing	4%	10	2.5	4
Practical	1%	6.67	8.89	10
Cost	10%	7.86	10	7.36
Utility Value (Calculated according to GI.5.1)		**8.84**	**7.22**	**8.31**
Utility of sensor criteria		4.79	3.91	4.43
Usefulness of software criteria		3.27	2.31	3.15

The result is a ranking of the measurement value acquisition systems in which the system

Pasco as the best alternative (Utility value of 8.84), followed by Vernier

(Utility value of 8.31) and finally Phywe (Utility value of 7.22).