Title: Hearing Aid Redesign P13038

Author: Marbella Vidals

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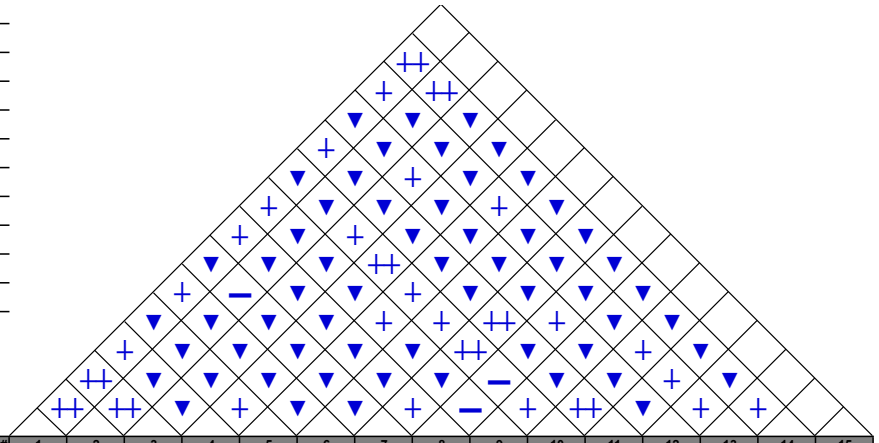
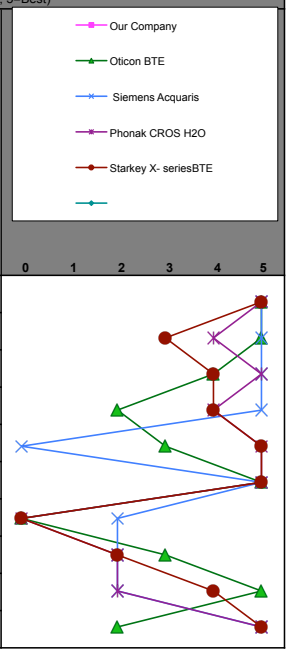
Notes:



Legend		
⊙	Strong Relationship	9
O	Moderate Relationship	3
▲	Weak Relationship	1
++	Strong Positive Correlation	
+	Positive Correlation	
−	Negative Correlation	
▼	Strong Negative Correlation	
▼	Objective Is To Minimize	
▲	Objective Is To Maximize	
X	Objective Is To Hit Target	

Row #	Max Relationship Value in Row	Relative Weight	Weight / Importance	Quality Characteristics (a.k.a. "Functional Requirements" or "Hows") / Demanded Quality (a.k.a. "Customer Requirements" or "Whats")	1 ▼ Lowest level of sound detected- dB	2 X Frequency amplified to max	3 ▲ levels of volume adjustment >10 levels	4 ▼ Time to Charge device < 60 min	5 X Connects to USB 2.0 computer port	6 ▼ Device temperature < 98 F	7 X Adult Ear size range 5% to 95%	8 ▼ Weight of Ear piece <12 grams	9 ▲ Battery life > 16Hrs	10 ▲ 70-95% of Customer satisfication (comfort,design, functions)	11 X Attaches to standard ear mold- binary (Y)	12 X Additional Toggle switch binary (N)	13 ▼ Manufacuting Cost < $2000	14 X Maximum amplification	15	Competitive Analysis (0=Worst, 5=Best) Our Company	Oticon BTE	Siemens Acquaris	Phonak CROS H2O	Starkey X- seriesBTE	
1	9	13.6	9.0	Amplifies sound	⊙	⊙	O	▲	▲	O	▲	O	O	▲	▲	▲	O	⊙			5	5	5	5	
2	9	13.6	9.0	Fits most adult ears	▲	▲	▲	▲	▲	▲	⊙	O	▲	⊙	⊙	▲	▲	▲			5	5	4	3	
3	9	4.5	3.0	Comfortable to wear	▲	▲	▲	▲	▲	⊙	⊙	⊙	▲	⊙	O	▲	O	▲			4	5	5	4	
4	9	13.6	9.0	Standard Eartube***	⊙	⊙	▲	▲	▲	▲	O	▲	▲	⊙	⊙	▲	▲	O			2	5	4	4	
5	9	4.5	3.0	Ability to adjust volume	▲	▲	⊙	▲	▲	▲	▲	▲	▲	▲	▲	O	▲	⊙			3	0	5	5	
6	9	13.6	9.0	Safe to use	▲	⊙	O	▲	▲	⊙	▲	O	▲	▲	▲	▲	▲	⊙			5	5	5	5	
7	9	13.6	9.0	Rechargable by USB	▲	▲	▲	O	⊙	▲	▲	▲	O	▲	▲	▲	▲	▲			0	2	0	0	
8	9	4.5	3.0	Power at least 48 hours	O	O	▲	O	⊙	▲	▲	▲	⊙	▲	▲	▲	O	▲			3	2	2	2	
9	9	4.5	3.0	Cost similar to current devices on market	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	O	⊙	O			5	2	2	4	
10	9	13.6	9.0	Does not draw attention to user as HH	O	O	O	▲	▲	▲	⊙	⊙	▲	⊙	⊙	O	O	O			2	5	5	5	
				Target or Limit Value	Ideal: 30dB Target: 60 dB	Ideal: 300-3400 Hz Target: 85-8000 Hz	10 levels	60 min	Yes	Ideal: Body Temp Target: Body Temp +10 degrees	5-95%	Ideal: 12 grams Target: 15 grams	Ideal: 48 hrs Target: 16 hrs	50-80%	Yes	No	$2,000	130 dB							
				Difficulty (0=Easy to Accomplish, 10=Extremely Difficult)	3	8	3	3	8	6	3	6	8	7	4	3	6	5								
				Max Relationship Value in Column	9	9	9	3	9	9	9	9	9	9	9	3	9	9								
				Weight / Importance	354.5	463.6	218.2	136.4	245.5	272.7	381.8	327.3	190.9	463.6	436.4	145.5	209.1	418.2								
				Relative Weight	8.3	10.9	5.1	3.2	5.8	6.4	9.0	7.7	4.5	10.9	10.2	3.4	4.9	9.8								



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