

Supplementary Materials

Table 5. Summary of Raw Data for All Teams.

Team	Pre-Test	Post-Test	Learning Effect	Product Quality	Total Effort (h)	Problem (h)	Solution (h)
A	2.56	3.08	1.21	4.24	110	44	66
B	2.90	3.33	1.15	6.02	203	68	135
C	2.93	3.13	1.07	7.68	335	88	247
D	2.94	3.88	1.32	5.84	220	195	25
E	2.98	2.92	0.98	6.60	173	99	74
F	2.99	3.51	1.17	6.56	264	88	176
G	2.72	3.51	1.29	5.80	369	166	203
H	2.51	3.53	1.41	6.32	207	48	159
I	3.04	3.46	1.14	5.56	224	60	164
J	3.03	3.76	1.24	5.32	198	111	87
K	3.61	3.69	1.02	4.96	136	70	66
L	3.13	3.51	1.12	6.44	326	145	181
M	3.39	3.32	0.98	7.28	318	183	135
N	3.08	3.60	1.17	7.52	371	172	199
O	3.16	3.27	1.03	6.90	76	34	42
P	3.14	3.36	1.07	5.80	216	89	127
Q	3.15	3.27	1.04	5.72	208	78	130
R	3.12	3.40	1.09	5.04	110	59	51
S	3.03	3.55	1.17	5.00	327	183	144
T	2.62	3.30	1.26	7.40	238	70	168
U	2.50	3.33	1.34	6.60	364	159	205
V	3.34	3.49	1.04	5.60	168	93	75
W	3.07	3.34	1.09	6.16	112	70	42
X	3.17	3.23	1.02	5.92	96	71	25
Y	3.17	3.38	1.07	7.64	222	47	175
Z	2.75	2.99	1.08	5.56	75	31	44
AA	3.38	3.77	1.11	6.52	281	144	137
AB	2.90	3.36	1.16	7.08	203	85	118
AC	3.11	3.39	1.09	6.00	294	122	172
AD	2.67	3.59	1.34	6.52	279	81	198

Notes: "Problem (h)" represents the hours spent addressing the problem, and "Solution (h)" represents the hours spent implementing the solution.