Improvement Rate by SAR Flag (Top

	False	True
Implementation Smell – Long Parameter List	0.6	1.2
Implementation Smell – Complex Method	1.3	3.0
Implementation Smell – Magic Number	6.0	8.1
Implementation Smell – Long Method	0.4	0.3
Implementation Smell – Missing Default	0.3	0.6
Implementation Smell – Complex Conditional	1.8	2.1
Implementation Smell – Empty Catch Clause	1.0	1.2
Implementation Smell – Long Statement	7.3	13.9
Implementation Smell – Long Identifier	0.2	1.8
Implementation Smell – Abstract Function Call From Constructor	0.1	0.0
Design Smell – Cyclic Hierarchy	0.0	0.0
Design Smell – Deep Hierarchy	0.1	0.0
Design Smell – Hub Like Modularization	0.2	0.0
Design Smell – Cyclic Dependent Modularization	0.3	0.6
Design Smell – Unexploited Encapsulation	0.2	0.3
Design Smell – Insufficient Modularization	0.4	0.9
Design Smell – Deficient Encapsulation	0.5	0.6
Design Smell – Multifaceted Abstraction	0.3	0.6
Design Smell – Unutilized Abstraction	5.1	6.3
Design Smell – Rebellious Hierarchy	0.1	0.3
Design Smell – Wide Hierarchy	0.1	0.0
Design Smell – Broken Modularization	0.5	0.3
Design Smell – Imperative Abstraction	0.4	0.0
Design Smell – Multipath Hierarchy	0.1	0.0
Design Smell – Unnecessary Abstraction	1.3	1.2
Design Smell – Missing Hierarchy	0.2	0.3
Class-Level Metric – Depth of Inheritance Tree	0.4	1.5
Class-Level Metric – Fan-Out	3.3	8.3
Class-Level Metric – Fan-In	3.2	4.4
Class-Level Metric – Number of Methods	5.7	10.7

is_self_affirmed

Improvement Rate (%)

12
10
8
6
4
2
0