TDD Empirical Evidence of Claims

Table 1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ID | Title | Authors | Source | Pub.  Year | DOI | Claim | Evidence Level |
| 1 | An experimental evaluation of test driven development vs. test-last development with industry professionals | Munir, H., Wnuk, K., Petersen, K., Moayyed, M. | EASE2014 | 2014 | https://doi.org/10.1145/2601248.2601267 | Code Quality Improvement | Strong support |
| 2 | An experimental evaluation of test driven development vs. test-last development with industry professionals | Munir, H., Wnuk, K., Petersen, K., Moayyed, M. | EASE2014 | 2014 | https://doi.org/10.1145/2601248.2601267 | Product Quality Improvement | Weak support |
| 3 | Realizing quality improvement through test driven development: results and experiences of four industrial teams | Nagappan, N., Maximilien, E. M., Bhat, T., Williams, L. | Empirical Software Engineering, 13(3), 289–302 | 2008 |  | Product Quality Improvement | Weak support |
| 4 | Does Test-Driven Development Really Improve Software Design Quality? | Janzen, D. S. | Software, IEEE, 25(2) 77-84 | 2008 |  | Code Quality Improvement | Strong support |
| 5 | Comparative Case Study on the Impact of Test-Driven Development on Program Design and Test Coverage | Siniaalto, M., Abrahamsson, P. | ArXiv.Org, cs.SE, arXiv:1711.05082-284 | 2017 |  | Code Quality Improvement | Weak against |
| 6 | Causal Factors, Benefits and Challenges of Test-Driven Development: Practitioner Perceptions | Buchan, Ji., Li, L. & MacDonell, S. G | 18TH ASIA PACIFIC SOFTWARE ENGINEERING CONFERENCE 2012 | 2012 | https://doi.org/10.1109/apsec.2011.44 | Team Satisfaction Improvement | Weak support |
| 7 | Causal Factors, Benefits and Challenges of Test-Driven Development: Practitioner Perceptions | Buchan, Ji., Li, L. & MacDonell, S. G | 18TH ASIA PACIFIC SOFTWARE ENGINEERING CONFERENCE 2012 | 2012 | https://doi.org/10.1109/apsec.2011.44 | Product Quality Improvement | Weak support |
| 8 | Driving Software Quality: How Test-Driven Development Impacts Software Quality. | Crispin, L | IEEE Software, 23(6), 70–71. | 2006 | https://doi.org/10.1109/ms.2006.157 | Code Quality Improvement | Strong Support |
| 9 | On the effectiveness of unit tests in test-driven development. | Kuhrmann, M., O’Connor, R. V., Houston, D., Tosun, A., Ahmed, M., Turhan, B. & Juristo, N. | ICSSP, 113–122 | 2018 | https://doi.org/10.1145/3202710.3203153 | Product Quality Improvement |  |
| 10 | On the effectiveness of unit tests in test-driven development. | Kuhrmann, M., O’Connor, R. V., Houston, D., Tosun, A., Ahmed, M., Turhan, B. & Juristo, N. | ICSSP, 113–122 | 2018 | https://doi.org/10.1145/3202710.3203153 | Code Quality Improvement |  |
| 11 | Test-Driven Development as a Defect-Reduction Practice. | Williams, L., Maximilien, E. M. & Vouk, M. | 4th International Symposium on Software Reliability Engineering, 2003. ISSRE 2003, 34–45. | 2001 | https://doi.org/10.1109/issre.2003.1251029 | Product Quality Improvement | Strong support |
| 12 | An Empirical Study of Test-Driven Development vs. Test-Last Development Using Eye Tracking. | Choma, J., Guerra, E. M., Silva, T. S. da, Albuquerque, T., Albuquerque, V. G. & Zaina, L. M. | WBMA, 1106(1), 11–24. | 2019 | https://doi.org/10.1007/978-3-030-36701-5\_2 | Code Quality Improvement | Weak support |