Towards Understanding the Rhetoric of Small Changes'

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Distribution of change classification on dependent files

New/Dependent change classification

Original change classification
Distribution of small changes

Percentage of changes resulting in error

Percentage of all changes

Number of lines changed
Change size distribution across files

Number of files

Number of lines changed
Erroneous changes classified by type of change

![Graph showing the percentage of changes that resulted in error against the number of lines changed. The graph compares inserted and modified lines.]
Erroneous changes versus change size

- Number of lines changed
- Percentage of changes that resulted in error (%)

- Inserted
- Modified
Relation between change classification and change type

Change classification

Type of change

- Unclassified
- Inspection (I)
- Adaptive (N)
- Perfective (C)
- Corrective (B)
Relation between various change types for one-line changes

![Bar chart showing the relation between various change types for one-line changes.](chart)

- **Modify (C)**:
  - Unclassified: 20%
  - Inspection (I): 30%
  - Adaptive (N): 40%
  - Perfective (C): 10%
  - Corrective (B): 5%

- **Insert (I)**:
  - Unclassified: 30%
  - Inspection (I): 20%
  - Adaptive (N): 30%
  - Perfective (C): 5%
  - Corrective (B): 5%

- **Delete (D)**:
  - Unclassified: 40%
  - Inspection (I): 20%
  - Adaptive (N): 20%
  - Perfective (C): 10%
  - Corrective (B): 10%
Distribution of changes based on type

- Change (C): 29%
- Insert (I): 28%
- Delete (D): 3%
- Combination (B): 40%
Distribution of changes based on purpose

- Corrective (B): 33%
- Perfective (C): 9%
- Adaptive (N): 48%
- Inspection (I): 2%
- Unclassified: 8%