

Using Newsletters to Analyze Curated Software Testing Content

1. Background

Software testing content resides in many places on the internet and is hard to find.

Aggregators simplify the news discovery process for readers [1].

Programming-related news aggregators have been found to provide relevant content [2].

Goal: Produce a data set & conclusions about software testing knowledge on the internet by using newsletters.

Will help to provide an understanding of what software testing knowledge is present in newsletters.

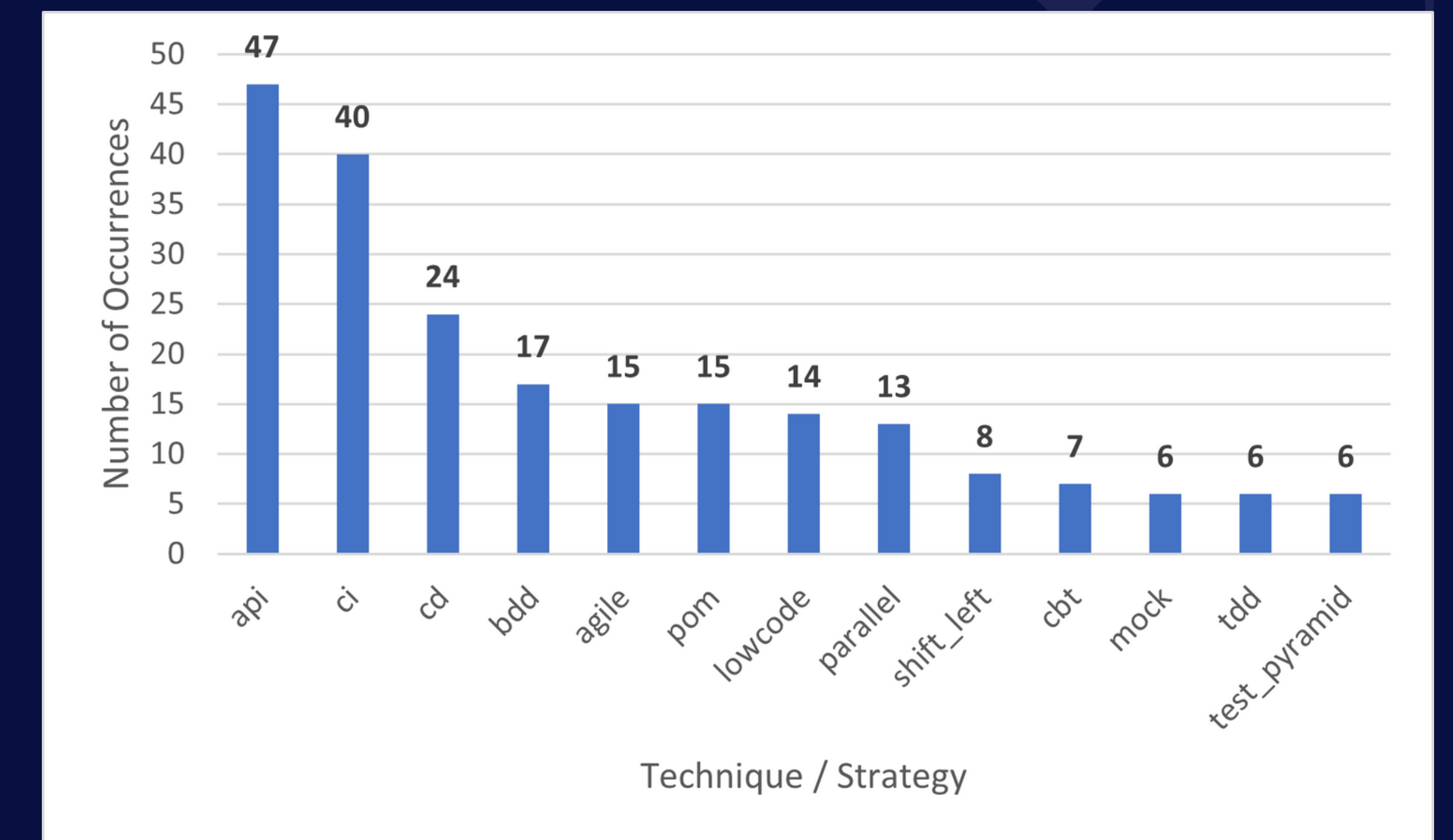
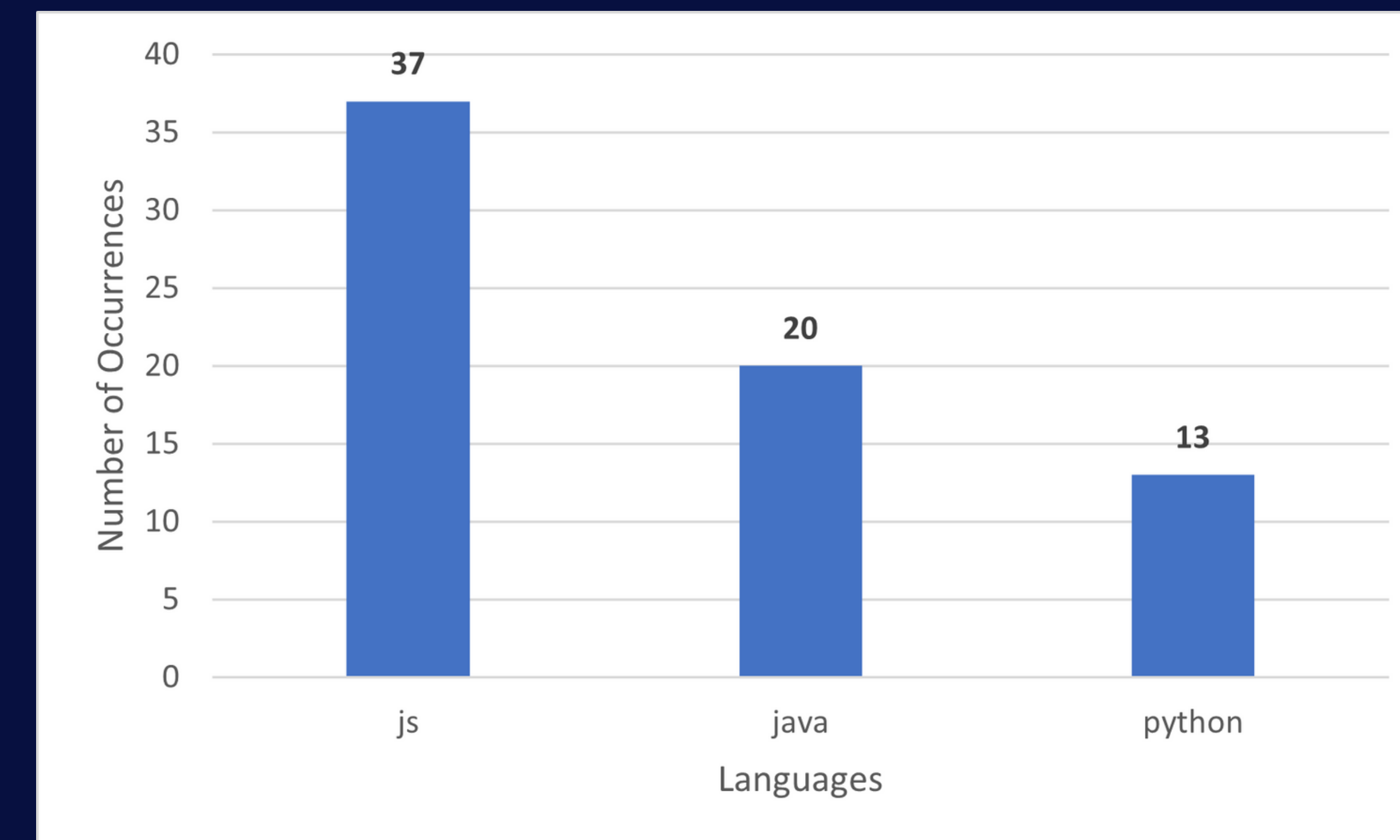
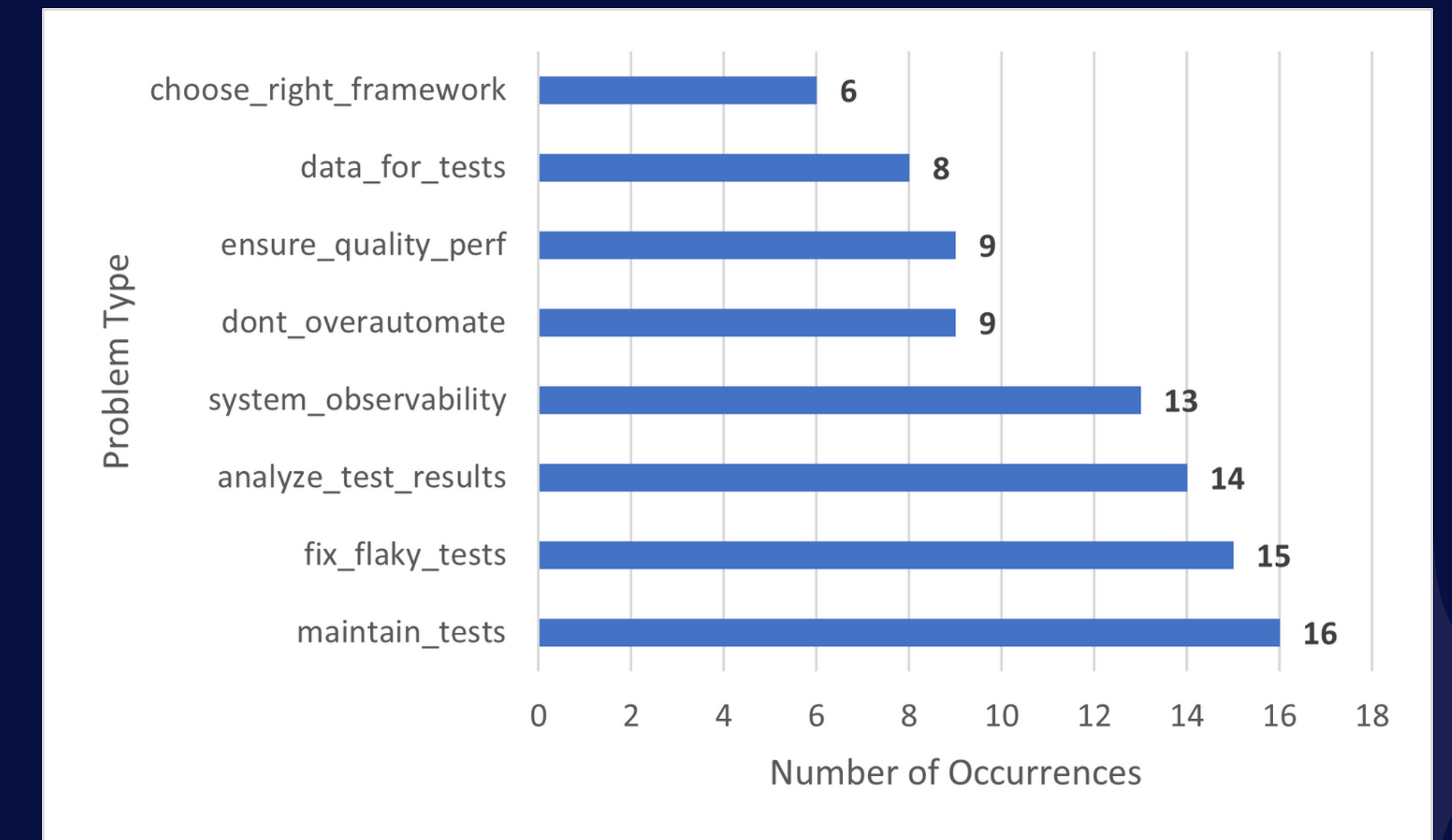
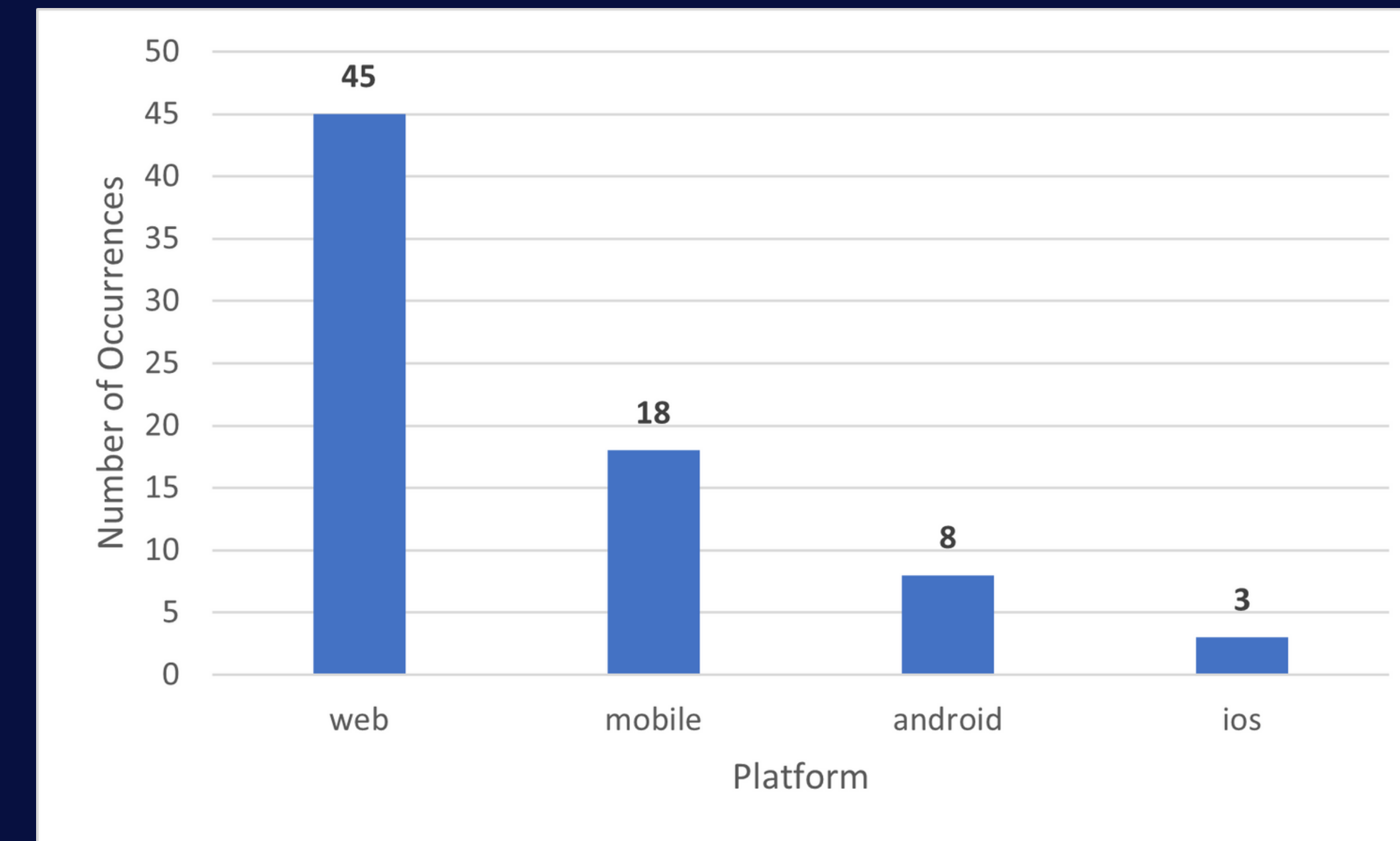
2. Research Q's

RQ1: What platforms, languages, and test types are discussed in newsletters?

RQ2: What common problems related to software testing are discussed in newsletters?

RQ3: What software testing tools, techniques, and strategies are discussed in newsletters?

RQ4: What types of software testing resources are shared in newsletters?



3. Methodology

Use 4 issues from 5 software testing newsletters (240 resources from 20 editions)

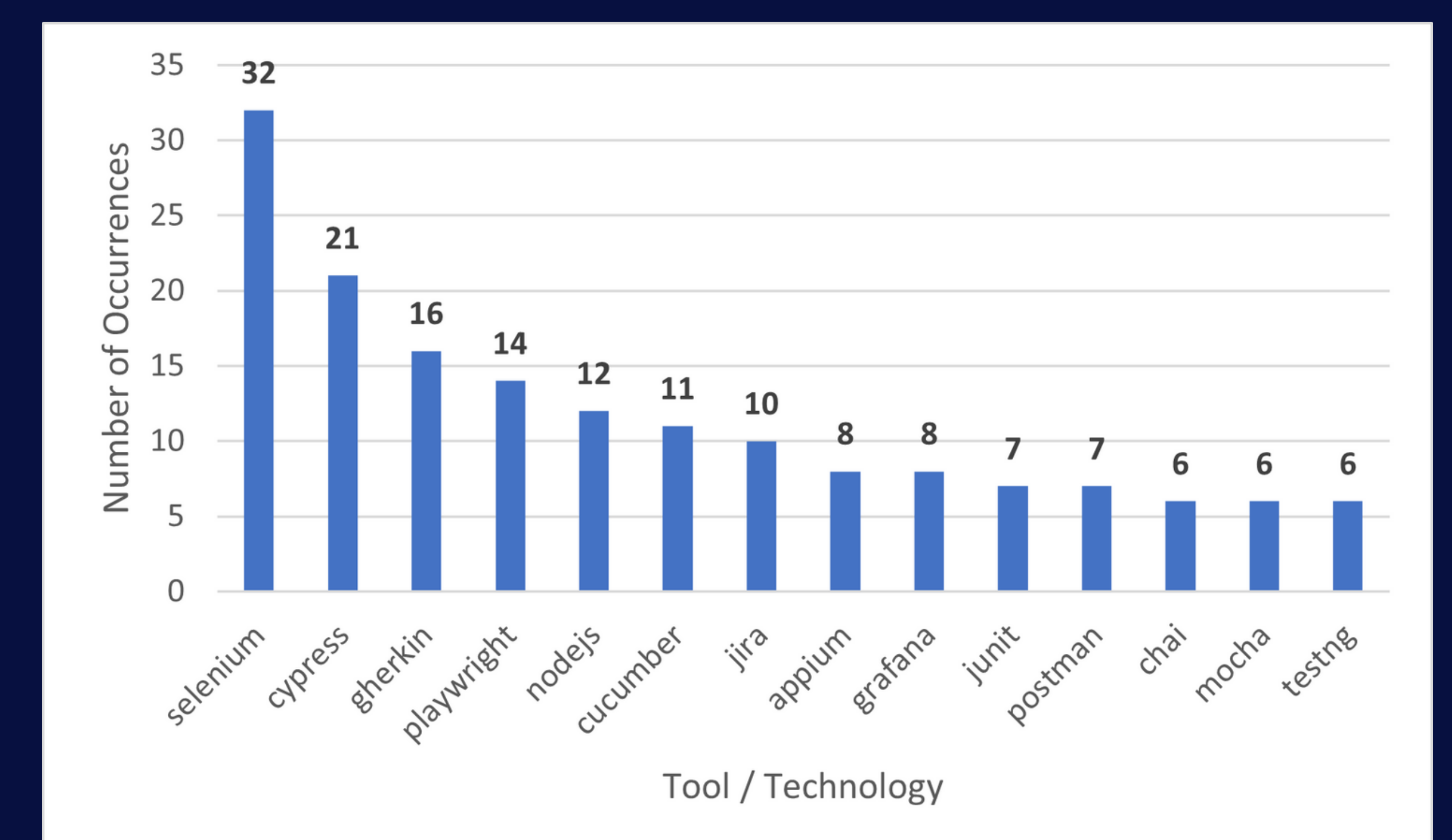
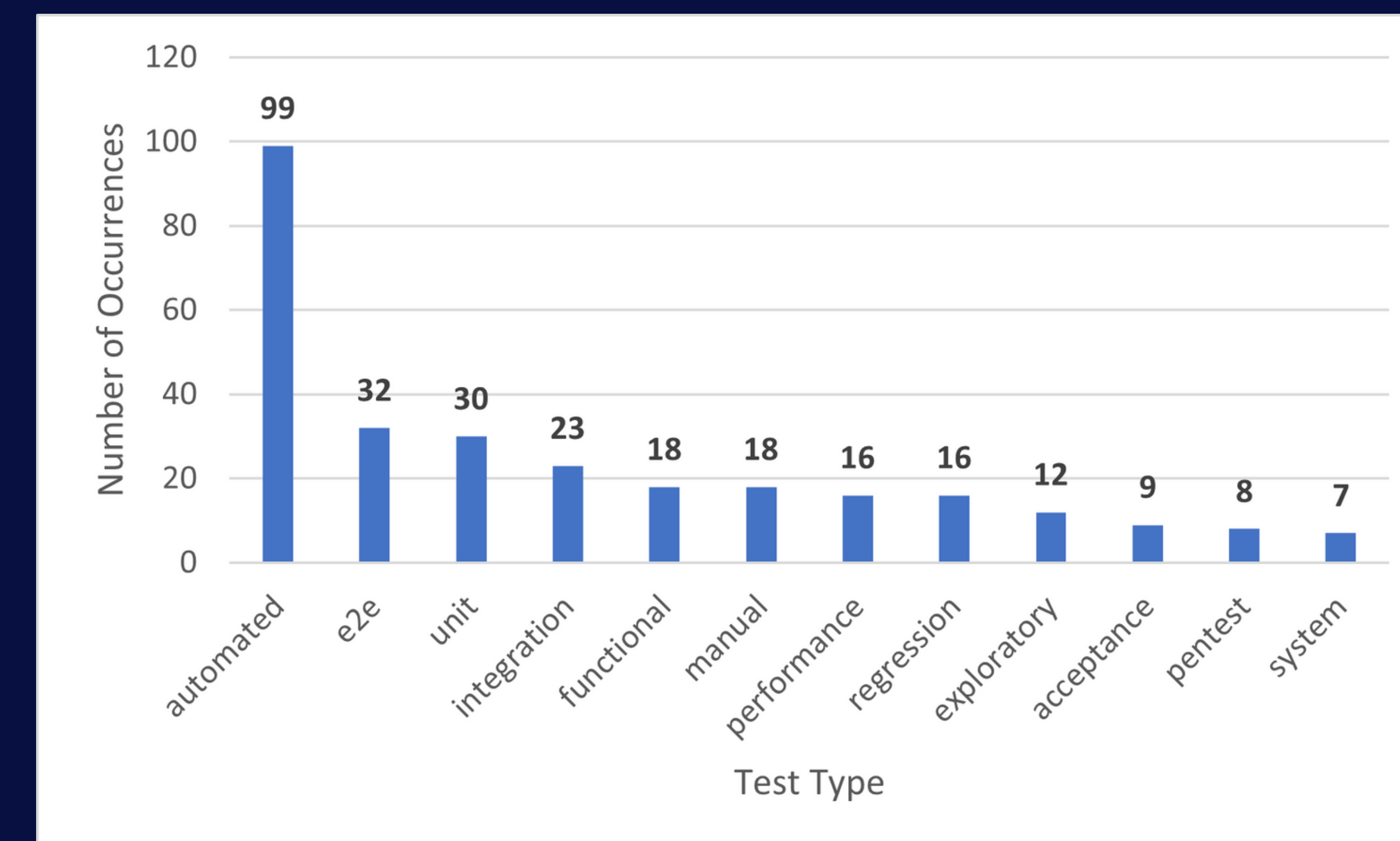
Utilize grounded theory / axial coding to annotate articles and find common techniques, problems, technologies, test types, platforms, and languages

Create a dataset containing resources and their details (date, section, etc)

Further augment the dataset with newsletter and duplicate article information

4. Conclusions

- **RQ1:** Automated web tests that discuss JS/TS are most commonly discussed
- **RQ2:** Properly maintaining tests, fixing flaky tests, and properly analyzing test results are the most common problems
- **RQ3:** Web test automation frameworks (Selenium, Cypress, Playwright) and the Gherkin syntax are some of the most popular tools/techniques/strategies
- **RQ4:** Subjective articles are most common, followed by articles that introduce a technology



5. Limits & Future Work

- **Limitation:** Tagging resources using grounded theory is subjective (unless validated by another person)
- **Limitation:** Resources can possibly be edited/removed from the internet, making the research harder to replicate
- **Future:** Analyze more newsletters
- **Future:** Use a more automated tagging approach to streamline analysis

