


Do users resolve type errors faster with ChameleonIDE than with GHC?

Users overall performed better with ChameleonIDE .

Can interactive features in ChameleonIDE improve performance in debugging type errors?



High interaction users performed better overall.

**User Study 1**  
Oct 2021



22 § 4.2.1

**User Study 2**  
Dec 2021






12 § 4.2.2

**User Study 3**  
Apr 2022



19 § 4.2.3

**User Study 4**  
Jun 2022



31 § 4.2.4



ChameleonIDE Version 1



ChameleonIDE Version 2



ChameleonIDE Version 3  
Basic Mode



ChameleonIDE Version 3  
Balanced Mode



ChameleonIDE Version 3  
Advanced Mode

It is not conclusive how effective ChameleonIDE is compared to GHC. However, a difference can be seen with harder tasks.

Is ChameleonIDE more effective in debugging type errors than GHC with harder tasks?

Users found the interactive features confusing and overwhelming.

How do users use the different modes of ChameleonIDE to fix type errors?

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Research Question

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Research Findings

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Design and Prototyping