

Usability of error messages for introductory students

Paul Andrew Schliep

Division of Science and Mathematics
University of Minnesota, Morris
Morris, Minnesota, USA

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University of Minnesota, Morris

Importance of error messages

- Error messages are important tool for beginner programmers
 - They are the main interaction between the system and the user
- Unhelpful error messages impose learning difficulties, especially for new programmers
- Error messages with poor usability can lead the user down the wrong path

Goals of an error message

- Starting...

Some title

- Starting...

Outline

- 1 Background
- 2 Analyses of error messages
- 3 Improving error messages
- 4 Conclusions

Outline

- 1 Background
 - Type errors
 - Error Types
- 2 Analyses of error messages
- 3 Improving error messages
- 4 Conclusions

Statically typed

- Something goes here...

Dynamically typed

- Something goes here...

Compiler errors

- Something goes here...

Runtime errors

- Something goes here...

Outline

- 1 Background
- 2 **Analyses of error messages**
 - Analysis of DrRacket IDE
 - Analysis of compiler errors
- 3 Improving error messages
- 4 Conclusions

Racket programming language

- Something goes here...

IDEs and DrRacket

- Something goes here...

Study and methods

- Something goes here...

Results

- Something goes here...

C++ programming language

- Something goes here...

Study and methods

- Something goes here...

Results

- Something goes here...

Outline

- 1 Background
- 2 Analyses of error messages
- 3 Improving error messages
 - Recommendations for improving IDE error messages
 - Analysis of syntax error enhancement
- 4 Conclusions

Introduction to recommendations

- Something goes here...

first recommendations

- Something goes here...

recommendations continued

- Something goes here...

conclusions and future work for program

- Something goes here...

Java and syntax errors

- Something goes here...

How they developed the program

- Something goes here...

How they tested the program

- Something goes here...

Results of syntax enhancement

- Something goes here...

Conclusions and future work of program

- Something goes here...

Outline

- 1 Background
- 2 Analyses of error messages
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- 4 Conclusions**

Results

- Something goes here...

Future work

- Something goes here...

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Thank you for your time and attention!

Contact:

- `schli202@morris.umn.edu`
- `github.com/Paul-Schliep`

Questions?

References



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See the GECCO '09 paper for additional references.