Homework 13 - Conclusion and Future Work

Andrew Carter and Beryl Egerter

April 28, 2013

1   Conclusion

We found that choosing the right strategy appeared to be useful for a student to solve the problems we gave. For the evaluation problem, the student chose execution order which seemed to help him understand how passing functions worked. For the debugging problem, the student chose to read from top down which allowed him to find a likely cause of the bug early and allowed him to skip a lot of complicated code.

Each of these strategies was well suited for the problem. Different problems may have different optimal strategies.

2   Future Work

For future work, we believe more qualitative research needs to be done to classify viable strategies for these two types of problems. Additionally, we would like to have a list of factors that may affect which strategy students choose for these problems. This could be done in a study where a wider variety of problems are given with changing factors such as length and complexity of code.

To follow the qualitative work, some quantitative research could occur. In particular, we would like to be able to quantify when strategies work well. We could learn if there is an optimal strategy for certain problems by requiring interviewees to use certain strategies even though they might choose another. Lastly, we could quantify how the factors in each problem affect which strategy is chosen by the student.