

9 Further Human–Computer Interaction (lec40)

You are designing a new syntax for a programming language like Java, with the intention of making it more approachable to students by using English words instead of punctuation symbols.

- (a) How does an HCI designer use a theory of human behaviour in their design practice? [2 marks]
- (b) What is an empirical method? Give an example and short description of that method. [3 marks]
- (c) Describe in terms of the Cognitive Dimensions two trade-offs involved between the existing Java syntax and the new proposed syntax. [8 marks]
- (d) How does the programming environment relate to this analysis? [2 marks]
- (e) A manager makes a proposal to try different permutations of syntaxes and measure students' performance using each permutation. How would you measure and compare the students' performance? [2 marks]
- (f) What are the likely strengths and weaknesses of the approach in Part (e)? [3 marks]