Exercise 4

Read the article about a research laboratory called ToddlerLab, and then answer the questions.

ToddlerLab

Science reporter Carolina Baker visits a laboratory where psychologists study toddlers (children who are about two or three years old) and young children

I'm visiting ToddlerLab, a multimillion-pound laboratory that has been set up at the University of London. In front of me is Serena. She's a perfectly ordinary-looking six-year-old girl, apart from the fact that there's a cap on her head with wires sticking out of it. There's nothing wrong with her at all – she's simply part of a group of children who have been studied by a team of researchers since the age of three. Rather than studying intelligence, they are actually interested in investigating how the brains of very young children develop.

In terms of their brains, there is no doubt that young children are extraordinary. 'The change between two and five years of age is pretty spectacular: there is a lot going on in terms of brain development,' said Natasha Kirkham, a professor of developmental psychology, who I met at the lab. She went on to tell me that babies' brains have been extensively studied. This is typically done by recording their eye movement and the electrical activity in their brains. However, opportunities to study young children's brains have been more limited because, until fairly recently, they needed to be attached to a machine for the technology to work. And this means that they can't move around – which is tricky, as it isn't part of a young child's natural behaviour to sit still for long periods of time. The development of new wearable technology is now enabling researchers to extend their studies.

I observe as one of the members of the team gives Serena a pair of bright pink gloves, which are covered in bits of silver-coloured reflective material. These allow special cameras on the ceiling to follow the exact position of Serena's hands as she completes various tasks. She carefully puts them on, then heads towards a table which has been set up to look like it's in a pre-school classroom, covered with several boxes and a computer screen.

One of Serena's tasks is to build a house using plastic blocks of all colours, shapes and sizes. She is shown a recording in which an adult quickly demonstrates how to press a button to release a range of blocks from the boxes, and then use them to build a house. Serena is told to copy what she has observed, and she does just that, producing a solid, colourful house, with a garden full of plastic flowers. I ask her if she would like to live in this house, and she promptly tells me what each room is – she clearly has a sense of imagination. The last time Serena performed this task, although she won't recall it, the result was very different – three-year-olds are much less able to understand a set of complex commands. And it is this ability that the study is focused on understanding more clearly.

It's been a really fascinating visit. Just before I leave, I ask Serena to tell me what she thinks about ToddlerLab. 'I like coming here to play all the different games,' she says, while she runs around the room. And **as she does so**, she whispers to me: 'I'd like to be a scientist when I'm older.'

Question 10

In the first paragraph, the writer suggests that Serena is interesting because

A she's unusually clever. ☐

B she's wearing a special device. ☐

C she's the only participant in an experiment. ☐

[1]