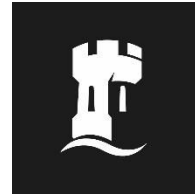


STUDY OUTLINE



University of
Nottingham
UK | CHINA | MALAYSIA

Date: 12/11/2018

Project: Investigation of how children interact with AI assistant Alexa when using it to learn

This study aims to investigate how using AI assistants could aid the maths learning process in education. This aims to break down the interaction between Amazon Alexa and the participant to see what happens when learning activities are completed.

The target number of participants is 30-60 to complete the following activities.

Part 1

This part of the study which will consist of 5-10 minutes. The first five minutes will be aided by me, talking them through playing 1-2-3 Math, Quick Maths and Maths Mania. They will then have five to ten minutes to play whichever they want.

Part 2

This is a paper questionnaire, asking a few questions that the participant can complete:

This is made up of questions of the nature:

Have you ever used Alexa before?

:I have an alexa at home, I don't have an Alexa but have used one before, I have never used an Alexa before.

How much do you like maths?

1-5 (1-do not like maths at all, 5- like maths very much)

What do you think of Alexa?

How easy did you find it to use Alexa?

1-5 (1- very easy, 5-very hard)

Part 3

This will then be a more informal interview that can introduce specific targeted questions to the participant. For example, if they did money over addition and multiplication, I would ask why they did this and if they normally enjoy doing money questions in maths or if it was due to Alexa.

Resources

The resources needed for this are:

- An environment for data collection and activities to be done in.
 - This will be a classroom or empty, quiet space in the school during class time or break time. It will be done of groups of around 2-4 children at a time.
- Alexa
 - This will be done using my Amazon Alexa
- Voice recording equipment
 - This will be done using my Mac and iPhone

Types of data taken

-Part 1 will be taken by recording audio for the duration of it.

-Part 2 will be taken using paper forms.

-Part 3 will be taken by recording audio for the duration of it.

The transcript of their interaction provided by Amazon will also be used.

Approval

Approval will be gained by:

1. Forming a relationship with the school and getting consent for the study to take place in that school.

[School's Consent](#)

2. I will then go in to the school and tell the class about the study and give out all relevant documents to each child that provisionally wants to take part, for them to take home and get permission to take part in.

[Project Information](#)

[Parent's Consent](#)

[Privacy Notice](#)

My contact details will be on the project information sheet for the parent to use to contact me if any further questions are needed to be answered before consent is given.

3. I will then visit the school in the following week to observe lessons and collect any forms when they are given back.

Responses should be given back within a week and form a list of pupils that can participate in the study.