

Paediatric Speech Therapy Initial Assessment and Automated Solution Survey (10mins)

In partial fulfilment of my MSc Computer Science and AI course, I am developing technologies to help screen Paediatric Speech Sound Disorders in children between the ages of 5 and 12. The first part of the survey is aimed at gathering your opinions on your current initial assessment process, the second section outlines a proposed automatic approach, and the third section is aimed at gathering your opinion on said automated approach.

There are seven statements in this survey that I'd be grateful if you can give your level of agreement, and two questions that require brief written answers.

The answers to this survey will be entirely anonymous

Please do not give any identifying information in your written responses as we will have to discard your answers.

Thank-you for any and all responses you can provide, your professional opinions are greatly appreciated.

* Required

Section
1

This section assesses your opinion on your current Initial Assessment Process. There are 5 questions.

1. You feel that the current system of Initial Assessment is efficient. *

Mark only one oval.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Undecided
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

2. After the majority of Initial Assessments, you know what targets to set in order to support the child. *

Mark only one oval.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Undecided
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

3. After an Initial Assessment, you often (approximately once a month) seek out a support from a colleague as to how I should begin treatment. *

Mark only one oval.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Undecided
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

4. Initial Assessments are important points of contact for noticing safeguarding issues. *

Mark only one oval.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Undecided
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

5. You would welcome a more automated approach to the Initial Assessment process *

Mark only one oval.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Undecided
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

Section
2

Please watch the video and read the explanations to get an idea of how the proposed website works.

There are no questions to answer in this section.

Demonstration Video (1m 26s)

You may need to zoom in to see details (Ctrl+Scroll)



<http://youtube.com>

[/watch?v=NHpKqIwbEn0](http://youtube.com/watch?v=NHpKqIwbEn0)

Data Collection Page

- A parent, guardian or healthcare assistant, if concerned about a child's speech development, will be able to go to this website and use the interface to record a number of words from a child.
- They will be provided image and worded prompts to help record the child's speech without saying the exact word.
- The speech samples can be reviewed, deleted, and retaken before submission.
- After submission, the speech samples are fed into a Machine Learning algorithm that measures the probability that the given word contains a Speech Sound Disorder.

Results Page

- The results page displays the results of the Machine Learning Algorithm.
- For example, the inputs in video produced a speech sound disorder diagnosis for the word 'Helicopter'.
- Then, using parts of the DEAP assessment, a list of plausible SSDs are presented to the user.
- If this were to be developed fully and deployed to the public, this output page could come straight to you, alongside an automated referral, enabling you to complete your own more informed informal assesment and begin therapy.

Section 3

This section gathers your opinion of the proposed website. There are 5 questions, two of which contain written answers.

6. The system outlined above, if implemented, would enable you up to focus more on therapy *

Mark only one oval.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Undecided
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

7. Assuming a good accuracy in the SSD detection, a website such as this could replace your current Initial Assessment process *

Mark only one oval.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Undecided
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

8. In as many or as few words as you like, please explain your answer to the above.

Please do not use any identifying information as this means your answers will have to be discarded.

9. A system such as this is could lead to potential safeguarding issues being overlooked. *

Mark only one oval.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Undecided
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

10. Is there anything you would personally like to see in a technology such as this?
Do you think anything has been missed? Please write as much or as little as you like.

Please do not use any identifying information as this means your answers will have to be discarded.

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