**Group Project – Literature Review**

Introduction

* Something to do with autism
* What the problem is
* How we intend to solve it
* Metion of each section and how it all relates to the proposed solution.

show how each sub section is relevant for background knowledge and how the studies are conducted and the results of said studies.

Autistic child psychology – 450 words

* Psychological and Educational Treatments for Autism - <https://www.cambridge.org/core/journals/journal-of-child-psychology-and-psychiatry-and-allied-disciplines/article/abs/psychological-and-educational-treatments-for-autism/A0A8A5CB4CDBB75CC5AD7705C507D957>
* A psychological approach to understanding the social and language impairments in autism - <https://www.tandfonline.com/doi/abs/10.1080/09540269974203>
* Predictable Robots for Autistic Children—Variance in Robot Behaviour, Idiosyncrasies in Autistic Children’s Characteristics, and Child–Robot Engagement - <https://dl.acm.org/doi/10.1145/3468849>
* Talk about the common issues autistic children face overall as well as possible difficulties with adults around the child being able to aid and care for them – to be used to link education and AI for later sections.
* This will lead into the issues the education system has with providing for autistic children and AI used to help with diagnosis.

Issues with education for autistic children – 450 words

* The preliminary validity and reliability of the Assessment of Barriers to Learning in Education – Autism:
  + We compared boys from regular education and special education for ASD.
  + Boys from special education for ASD experienced more conflict with their teachers.
  + Boys from special education for ASD were less engaged with school.
  + The association between conflict and engagement was stronger in special education.
* Educators’ Challenges of Including Children with Autism Spectrum Disorder in Mainstream Classrooms:
  + This study drew on a purposive sample of educators to gain a better understanding of the challenges they experience when including children with ASD in their classrooms.
  + How the study was conducted
  + Results of study
* This will link to the previously mentioned issues children with autism face as well as educators’ ability to provide suitable education for the large array of methods autistic children learn and cope with certain aspects of social and academic interactions (i.e. child breakdowns and overstimulation)

Issues with education and AI usage – 450 words

* AI in Education - <https://www.mdpi.com/books/book/5611>
  + “Academicians and administrative personnel use data to predict a student’s performance during the time of admission, predict the job scope for a student at the time of course completion or the dropout based on the aggregate numbers from the entire set of students, or gauge a particular student’s success or failure rate in the subsequent grades.”
  + “This study will help support efforts in governance for performance monitoring, policy formulation, target-setting, evaluation, and reform to address the issues and challenges in education worldwide.”
* A Path Towards Child-Centric Artificial Intelligence based Education- <https://www.researchgate.net/profile/Burada-Sreedhar/publication/361227279_A_Path_Towards_Child-Centric_Artificial_Intelligence_based_Education/links/62a428cfc660ab61f872a70a/A-Path-Towards-Child-Centric-Artificial-Intelligence-based-Education.pdf>:
  + Section 4 - AI's challenges in Education
* This section will include the risks and issues AI within education can face such as costs, privacy, and information etc – find more information in sources.
* This section will link to the conclusion paragraph which will provide more context for the use of AI within education for autistic children

Studies that have done something like our problem. – 450 words

* A Review on Artificial Intelligence in Special Education:
* Helping Educators Monitor Autistic Children's Progress Across Sessions: A Need finding Study
  + “Social robots may be beneficial to educators working with autistic children in helping to monitor the children's progress.”
  + It is theoretical so idk ASK ABOUT
* Artificial Intelligence Enabled Personalised Assistive Tools to Enhance Education of Children with Neurodevelopmental Disorders—A Review
  + This review summarises the range and effectiveness of AI-assisted tools, developed using machine learning models, which have been applied to address learning challenges in students with a range of NDDs.
  + Our review summarises the evidence that AI tools can be successfully used to improve social interaction and supportive education.
  + Based on the limitations of existing AI tools, we provide recommendations for the development of future AI tools with a focus on providing personalised learning for individuals with NDDs.
* Teaching intelligible speech to the autistic children by interactive computer games - <https://dl.acm.org/doi/10.1145/1982185.1982450>:
* Using an emergent system concept in designing interactive games for autistic children - <https://dl.acm.org/doi/10.1145/1297277.1297291>
* The study of the pet robot therapy in Thai autistic children - <https://dl.acm.org/doi/10.5555/2500753.2500803>

Small paragraph concluding the section by combining the results of the research from the typical symptoms of autism, ideas for autistic children in education combined with the use of AI in education. – no more than 200 words