

Talent Identifier Requirements Document

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ABSTRACT

Autism is a lifelong developmental disability that affects a person's ability to communicate and build social relationships. It also leads to unusually narrow interests, a strong preference for repetition, sensory hyper-sensitivity, and challenges in adjusting to unexpected change.

Autism also leads to excellent attention to detail, memory for detail, and excellent pattern recognition. Some people with autism also have learning difficulties and/or language delay.

In this project, we will attempt to identify the talents of kids diagnosed with autism, so that they can be trained in that skill helping them to be happy and lead a somewhat normal life.

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1 Introduction

1.1 Problem Statement

The aim of this project is to create a method by which the talent of an autistic kid can be identified. We intend to create a website where, if you input certain particular parameters, as the output you get what the kid is interested in.

1.2 Scope

This project has a very huge social impact. The people diagnosed with autism, who live their life with great difficulty, can improve their quality of life.

Employability is a very important factor in evaluating the quality of life. Currently, people diagnosed with autism generally have a very low quality of life.[1] Identifying the talent of these kids will help them in focusing on what they are interested in. Once their interest is found, if trained properly, they become employable, thus increasing their quality of life.[2]

2 Literature Survey

In this section, some related work on identifying the talent of autistic people, will be discussed.

The biggest inspiration for this project came from the fact that there currently does not exist any clear or fixed method to identify the talents of kids diagnosed with autism. Currently, people do this by observing the autistic kid very closely to know where their interests lie. But, this is not a dependable method that will work for all the people. It is also very time-consuming and requires close interaction with the kid.

As of now, the Autism Research Trust has a project titled “Pilot Neuroimaging the study of savants” where they study what the neuroanatomical and functional similarities and differences are between autistic individuals with and without savant skills, as well as people with savant skills who are not autistic and people who are neither autistic or have any savant skills. [3] This project has come the closest to studying these people. Even then, this project does not focus on identifying the skill, just how their brain differs from other people.

Patricia Howlin, Susan Goode, Jane Hutton and Michael Rutter have published an article titled ”Savant skills in autism: psychometric approaches and parental reports” that studied savant skills in autism through psychometric approaches and parental reports.[4] But, just like the above-mentioned project, it does not involve identifying the talents of these people.

3 Development Plan

In this chapter, functional objective, constraints and development plan will be discussed.

3.1 Functional Objective

Most kids with autism is skilled in something very particular. Our objective is to find that particular something. In the initial stage, given some input parameters, we identify whether the kid is skilled in logic or creativity. As the project progresses, we further narrow down the skill into something more specific. Like if the kid is skilled in creativity, we identify whether he/she is gifted in drawing, music, dancing etc. Or if the kid is skilled in logic, whether their talent is particular to analytics, problem solving, mathematical skills etc.

3.2 Constraints

- Time Consuming : For this project, we have to visit an institution, talk to the kids, their teachers and we have to do proper research, all of which will take time. Implementing the project according to the development plan mentioned below will also take time.
- No specific output : Since humans are very unpredictable and unique, no test will work the same way for everyone. And as such, a specific output cannot be obtained.

3.3 Development Plan

Initially, we have to meet and interact with the kids their teachers and if possible their parents. After we have collected sufficient data, we formulate something like an aptitude test which will comprise of the kid applying himself in all kinds of activities which involve both logical and creative skills. After this, the kid is given training in all these activities. Then this test is conducted again and the activity in which the kid shows the most improvement, will be the one he/she is most interested in.

4 Requirements

- We need to go to an institution that kids with autism go to. We need to meet and interact with the kids, their teachers and if possible, their parents. For this we need to have a good relation with such an institution.
- A very big requirement is time, since we need to first collect data, implement the test, train them and then implement the test again
- We also require skilled instructors for training the kids.

5 References

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