

1. Introduction

1.1. Background & Literature Survey

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1.2. Research Gap

Table 1.2.1 : Summary of Research Gap

Feature	Research 1 [17]	Research 2 [8]	Research 3 [18]	Research 4 [19]	Research 3 [20]	Research 3 [21]	Proposed Solution
Specially targeted for children	Yes	No	No	No	Yes	No	Yes
Used video-based eye-tracking (mobile cam or web came)	Yes	No	Yes	Yes	Yes	Yes	Yes
Developed for maintain a child's attention	No	No	No	Yes	Yes	Yes	Yes
have been made automatically to determine the attention	No	No	No	Yes	Yes	No	Yes
Sri Lankan culturally sensitive	No	No	No	No	No	No	Yes
Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes
Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes
Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes
Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes
Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes

Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes
Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes
Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes
Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes
Use screen base task for tracking the gaze of child	No	No	Yes	Yes	Yes	Yes	Yes

Given the summary of the background literature and research gap shown in Table 1.2.1, it is clear that a country such as Sri Lanka in particular needs a way to bridge these gaps. It would be useful for specially parents and doctors if there is a mechanism in place to identify the different behavioral patterns of Sri Lankans' children during gaze recording. Therefore using knowledge of the research gap, newly proposed research will be conducted in order to introduce an effective way of designing another set of tasks to assess the gaze recording task for Sri Lankan children in the 1-6 age range.

With the advancement of the medical field there are many attentions related disorders like attention deficit hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) that have been identified. Though there is no cure for these disorders, if identified and treated in young children, there is a possibility to reduce symptoms, improve cognitive ability and daily life skills, and maximize the child's ability to function and participate in the community. [1-6]. Therefore, it is critical to identify these disorders as early as possible to start treatments.

To identify these disorders, it might take a qualified professional. But, in countries like Sri Lanka, there is minimal practices which screen and diagnose these disorders at such early ages. If there was an easy way to get even a rough idea on if a child is showing any symptoms of such disorder, it would be a relief for the parents. An easier way of measuring a child's attention is to study his gaze. That is if the child can keep an eye on a distinct subject for a period of time.