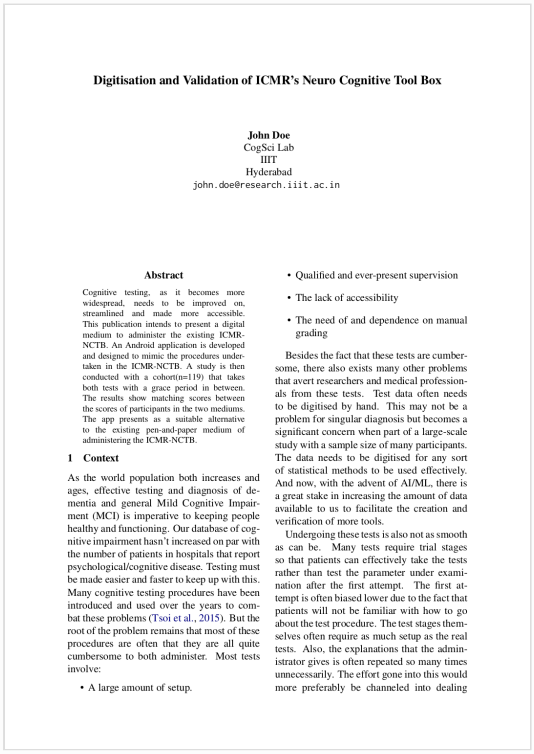
# Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

| | |
|---|---|
| Submission author: | George Paul |
| Assignment title: | Technical Writing Workshop 2023 |
| Submission title: | TWW Final Paper Submission |
| File name: | tisation_and_Validation_of_ICMR_s_Neuro_Cognitive_Tool_Bo... |
| File size: | 160.64K |
| Page count: | 4 |
| Word count: | 1,576 |
| Character count: | 8,151 |
| Submission date: | 27-Oct-2023 04:31PM (UTC+0530) |
| Submission ID: | 2208946357 |



**Digitisation and Validation of ICMR's Neuro Cognitive Tool Box**

**John Doe**
CogSci Lab
IIIT
Hyderabad
john.doe@research.iiit.ac.in

**Abstract**

Cognitive testing, as it becomes more widespread, needs to be improved on, streamlined and made more accessible. This publication intends to present a digital medium to administer the existing ICMR-NCTB. An Android application is developed and designed to mimic the procedures undertaken in the ICMR-NCTB. A study is then conducted with a cohort(n=119) that takes both tests with a grace period in between. The results show matching scores between the scores of participants in the two mediums. The app presents as a suitable alternative to the existing pen-and-paper medium of administering the ICMR-NCTB.

**1 Context**

As the world population both increases and ages, effective testing and diagnosis of dementia and general Mild Cognitive Impairment (MCI) is imperative to keeping people healthy and functioning. Our database of cognitive impairment hasn't increased on par with the number of patients in hospitals that report psychological/cognitive disease. Testing must be made easier and faster to keep up with this. Many cognitive testing procedures have been introduced and used over the years to combat these problems (Tsoi et al., 2015). But the root of the problem remains that most of these procedures are often that they are all quite cumbersome to both administer. Most tests involve:

- A large amount of setup.
- Qualified and ever-present supervision
- The lack of accessibility
- The need of and dependence on manual grading

Besides the fact that these tests are cumbersome, there also exists many other problems that avert researchers and medical professionals from these tests. Test data often needs to be digitised by hand. This may not be a problem for singular diagnosis but becomes a significant concern when part of a large-scale study with a sample size of many participants. The data needs to be digitised for any sort of statistical methods to be used effectively. And now, with the advent of AI/ML, there is a great stake in increasing the amount of data available to us to facilitate the creation and verification of more tools.

Undergoing these tests is also not as smooth as can be. Many tests require trial stages so that patients can effectively take the tests rather than test the parameter under examination after the first attempt. The first attempt is often biased lower due to the fact that patients will not be familiar with how to go about the test procedure. The test stages themselves often require as much setup as the real tests. Also, the explanations that the administrator gives is often repeated so many times unnecessarily. The effort gone into this would more preferably be channeled into dealing