

DO YOU REMEMBER WHAT YOU ATE YESTERDAY?

ARE YOU SOMETIMES SUPER CLUMSY?

DO YOU STRUGGLE WITH ANALYTICAL
THINKING/LANGUAGE RECOGNITION?

INTRODUCING...

MINDSET.

GROUP 4 PROJECT

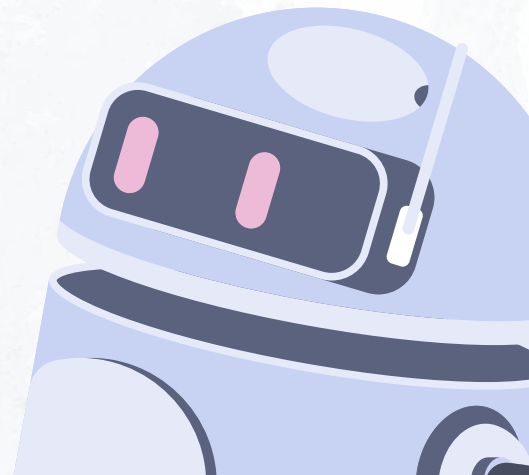


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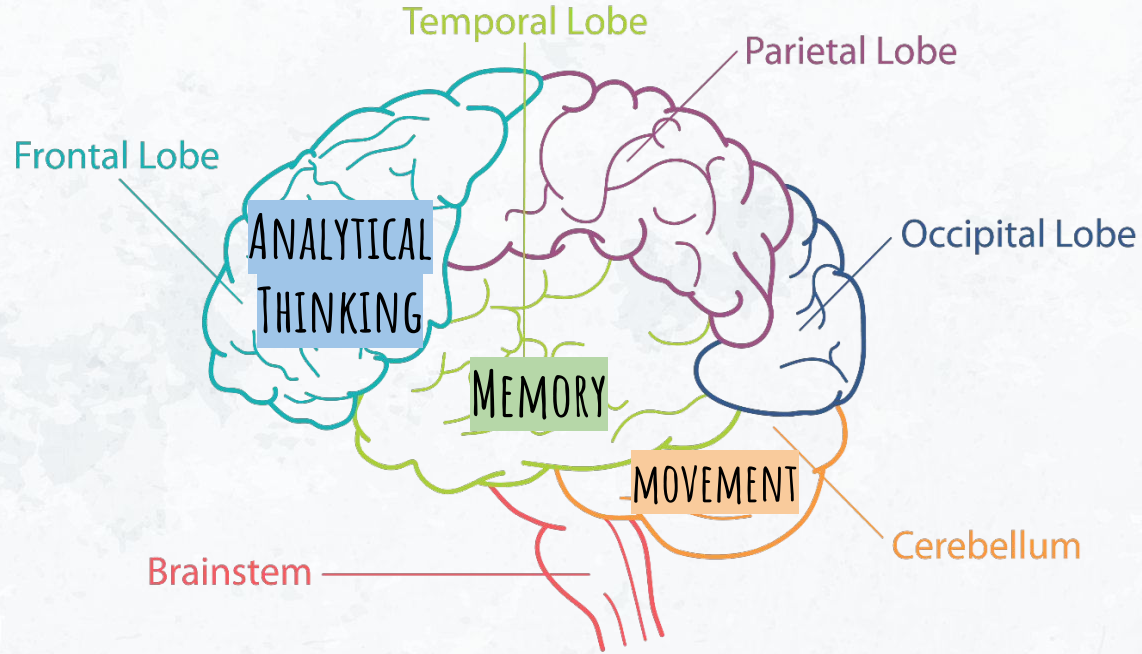
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01

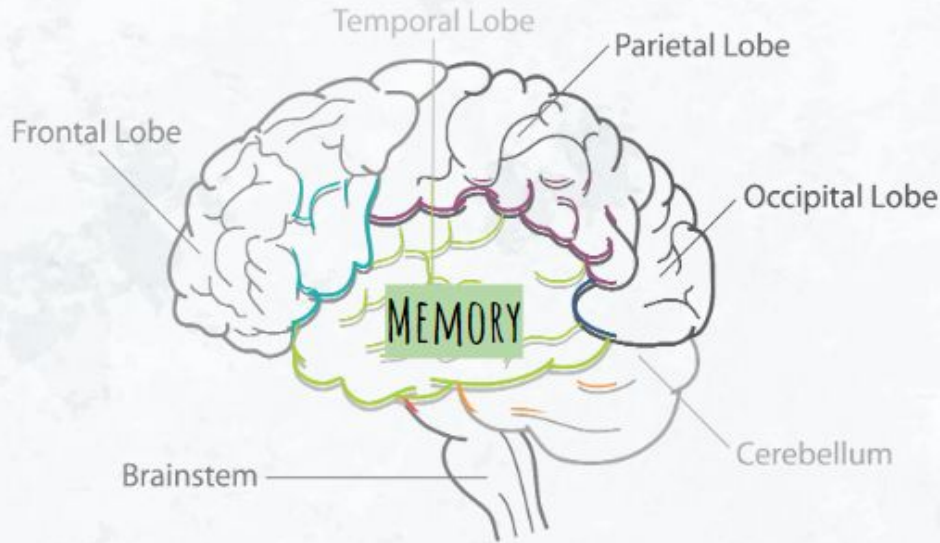
THE TARGET PROBLEM

THIS IS YOUR BRAIN... IT'S RESPONSIBLE FOR:



BUT, IT GETS TIRED...

THE HIPPOCAMPUS - LOW MEMORY RETENTION



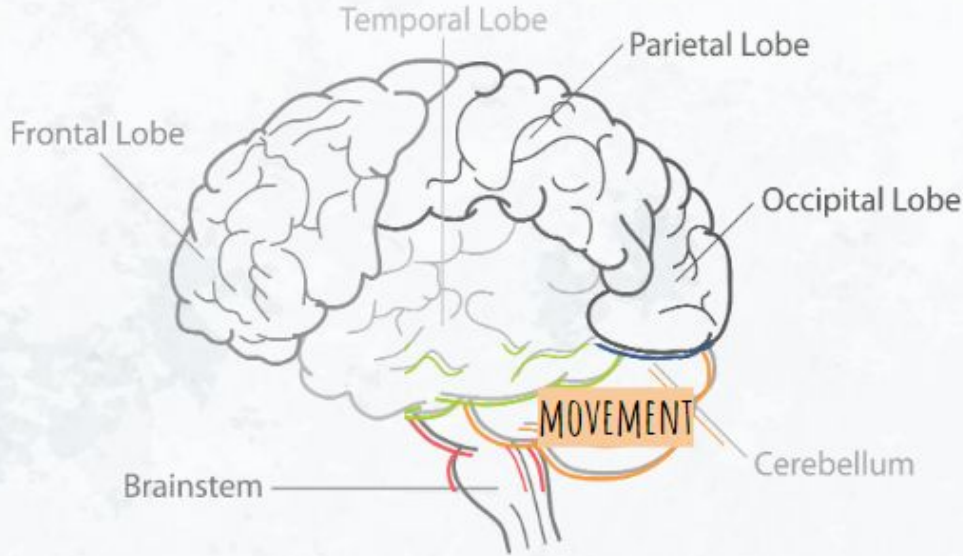
HIPPOCAMPUS TO-DO LIST:

- Process and retain info
- Sort info b/w facts (AKA acquired knowledge) & personal experiences

IMPROVE HIPPOCAMPAL FUNCTION:

- Light exercise increases BDNF levels = higher hippocampal volume
- Brain games increase performance and retention of memories

THE CEREBELLUM - WEAK COORDINATION



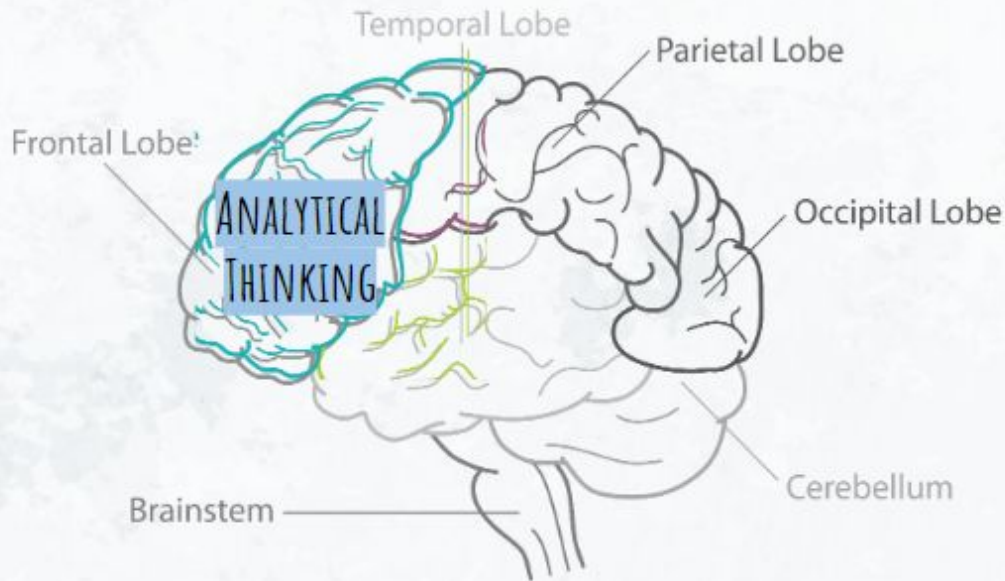
CEREBELLUM TO-DO LIST:

- Maintains balance, coordination, and vision

IMPROVE CEREBELLUM FUNCTION:

- Exercises that strengthen hand-eye coordination and fast movement increase optimal function

THE CEREBRUM - PROBLEM-SOLVING



CEREBRUM TO-DO LIST:

- Supports speech, hearing, and problem-solving skills

IMPROVE CEREBRUM FUNCTION:

- Puzzles force increased thinking capacity
- Brain games increase dopamine = greater concentration

02

PRESENT SOLUTIONS

WHAT'S OUT THERE AT THE MOMENT?

LUMINOSITY VS. ELEVATE

LUMINOSITY

- Improves brain function via adaptive games curated to the user's personal needs/improvement
- Uses mini games to evaluate users' abilities to improve areas such as problem solving, language skills and math

ELEVATE

- This app evaluates the users through the apps unique "Elevate Proficiency Quotient"
- Focuses on skills in specific subject areas such as math and language (i.e. reading, writing, speaking)

MAIN CONCERNS OF BOTH

- Cost
- Limited time to complete proposed activities
- Games are very test-based

03

OUR PRODUCT

mindset.

*A FREE ALL IN ONE MOBILE APP, THAT IMPROVES OPTIMAL BRAIN
FUNCTION, IN ALL THREE MAJOR AREAS OF THE BRAIN.*

GAME DESCRIPTIONS

MEMORY RETENTION	do you remember? <ul style="list-style-type: none"> - Card matching: user's have 45 seconds to match a certain number of card pairs with the positions randomized with each round - Contains different modes (easy = 20 pairs, medium = 30 pairs, hard = 40 pairs) 	<ul style="list-style-type: none"> - The aim of this game is to improve the hippocampus' function - Memory cards help with recalling and problem solving, stimulating the hippocampus, improving short-term memory
COORDINATION	dot, dot, dot.. <ul style="list-style-type: none"> - Precision - user's must try a click the dot as many times as possible in the given time window - Contains different modes (easy = 45 s , medium = 30 s, hard = 15 s) 	<ul style="list-style-type: none"> - Improves reaction time - Shortens the time taken to coordinate the connection between the brain and other parts of the body (in this case your eyes and hands)
PROBLEM-SOLVING	scrabble but easier... <ul style="list-style-type: none"> - Word jumbles - users see different scrambled words with 45 seconds to unscramble as many of them as possible - Improves speed of processing and understanding information - Contains different modes (easy = 3 letters, medium = 4 letters, hard = 5 letters) 	<ul style="list-style-type: none"> - This game improves the speed of processing and understanding information - Enhances language abilities (speaking, reading, writing, listening) as the cerebrum controls this ability

RELAXATION ACTIVITIES DESCRIPTION

MEDITATION	<ul style="list-style-type: none">- Users will be able to choose how long they want to breathe (1-5 minutes) with a function to choose between a easy and normal mode- The easy mode is for those who have difficulty following the normal routine
FOCUS	<ul style="list-style-type: none">- When using this function, a table of sound options will pop up- Users will be able to pick as many sounds to play at once for as long as they want- Sounds from nature are shown to have a positive effect on people- These sounds reduce the body's sympathetic response (fight or flight feeling)

PLANS FOR THE FUTURE & CURRENT LIMITATIONS

PROBLEMS	EVENTUAL FIX
<ul style="list-style-type: none">- Currently there are not many options for the user to play with and may not appeal to everyone	<ul style="list-style-type: none">- Implementing new games and activities will make <i>mindset.</i> more user-friendly and engaging
<ul style="list-style-type: none">- Not fully functional (not all activities or games are usable)	<ul style="list-style-type: none">- Given the time and resources, <i>mindset.</i> will grow to be a better app

04

CONNECTIONS TO SCIENCES

COURSE MATERIAL

Biology analyzing the parts of the brain and its functions

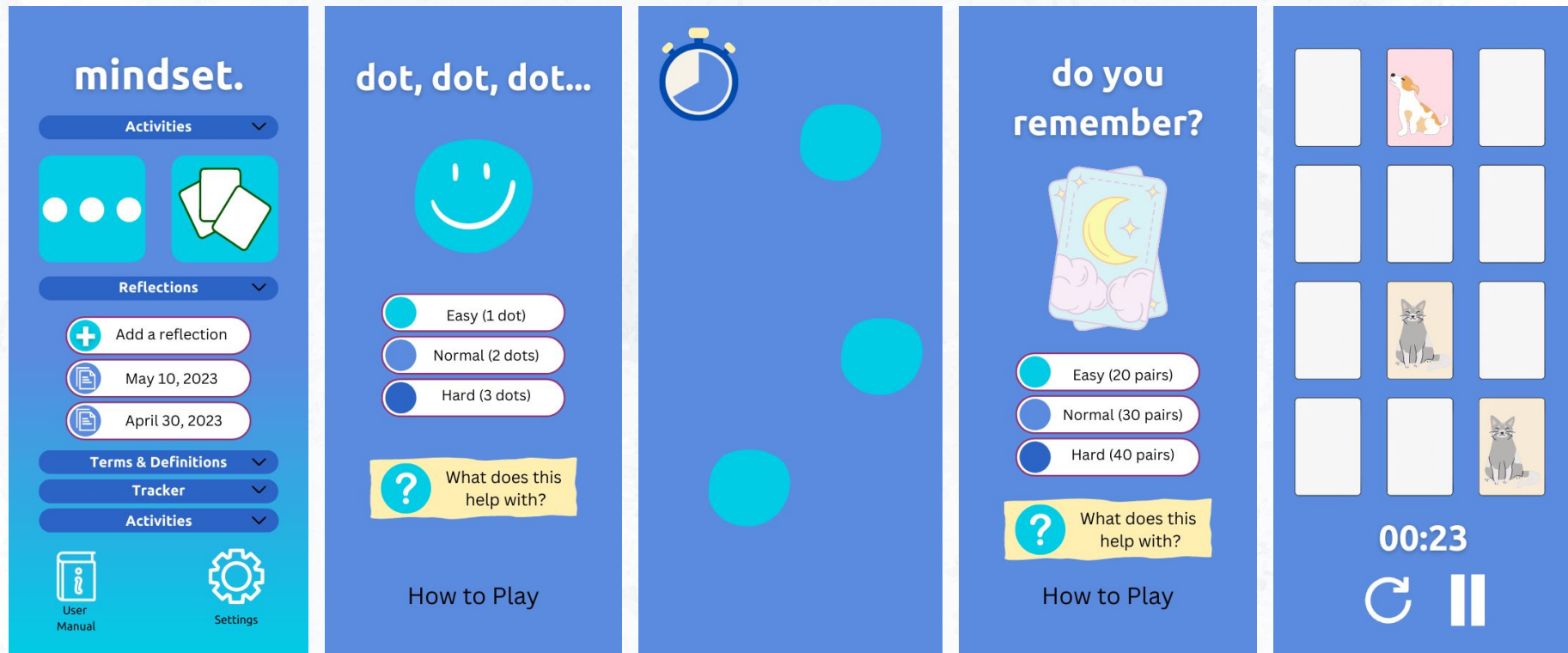
**Computer
Science** creating the app's wireframe and programming

Chemistry understanding the release of chemicals such as serotonin to assist both brain growth and function

05

THE PROCESS

WIREFRAME



WIREFRAME

Tracker



Start: Current:
5% 63%

Today's Results:



activities

a way to destress

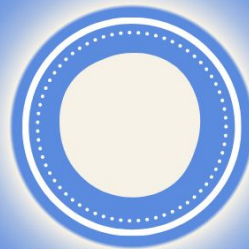


meditate



focus

meditate



minutes



easy

normal

CODING

```
// Add the timer JLabel to the frame
mindsetApp.frame.add(timerLabel);

// Add the timer for game 1 - easy mode
easyTimerGame1();

// Add an ActionListener for the circle JButton
circleLabel.addActionListener(new ActionListener() {

    @Override
    public void actionPerformed(ActionEvent e) {

        // Repaint the frame
        mindsetApp.frame.repaint();

        // Update the counter each time
        clickCounter += 1;

        // Display clicks counter
        totalClicks.setText("" + clickCounter);
        totalClicks.setBounds(270, 490, 120, 50);
        totalClicks.setFont(new Font("Cooper Black", Font.PLAIN, 20));
```

```
public static void easyTimerGame1() {

    Timer timer = new Timer();
    timer.schedule(new TimerTask() {

        int numberOfSeconds = 45; // set the number of seconds for the timer

        public void run() {
            timerLabel.setText("" + numberOfSeconds--); // set text of remaining seconds

            // Once the timer reaches 0, tell the user the game is over and
            // don't let them continue playing
            if (numberOfSeconds == 0) {
                mindsetApp.frame.remove(timer);
                timerLabel.setText("game over!");
                timerLabel.setBounds(180, 530, 180, 50);
                circleLabel.setEnabled(false);

                timer.cancel(); // End the timer
            }
        }, 0, 450);

    } // End of easyTimerGame1() method
```

From *mindset*. Game 1

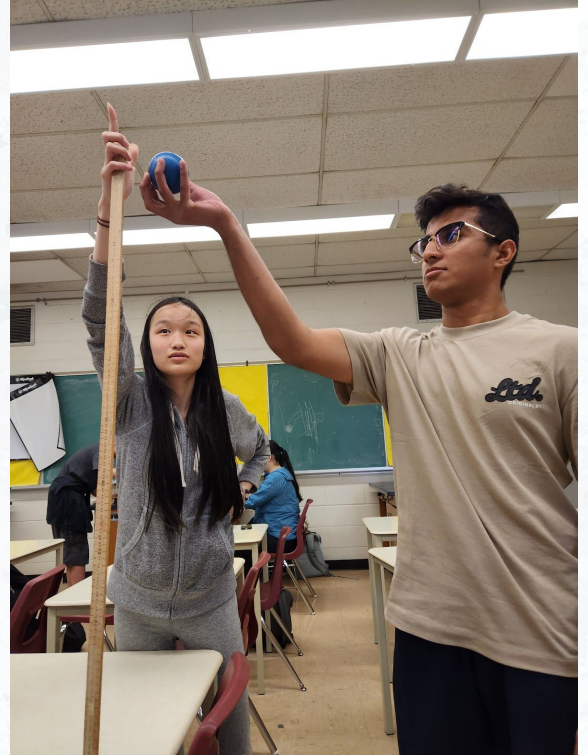
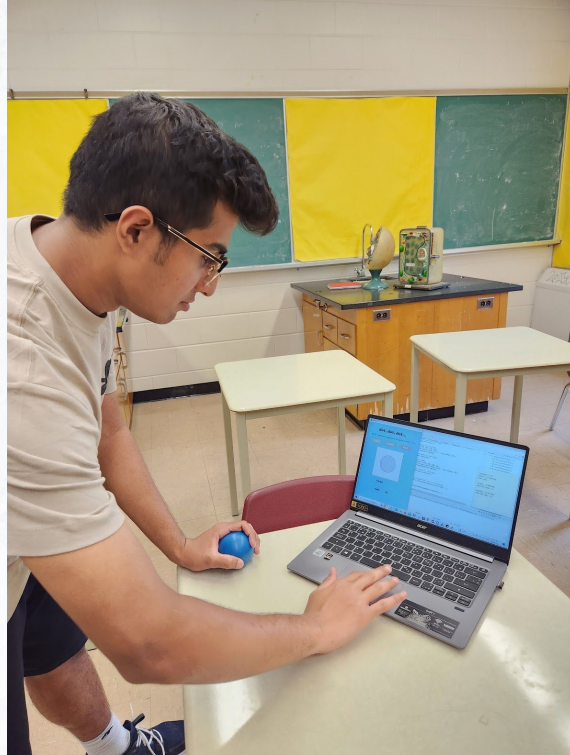
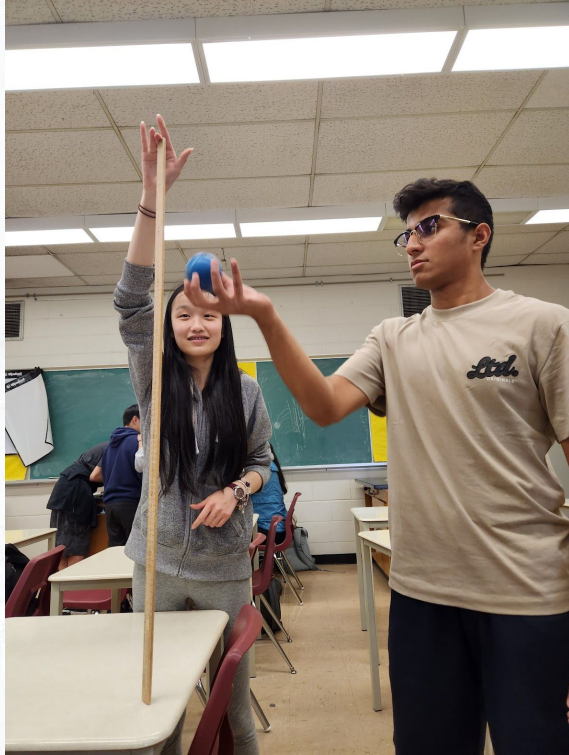
“dot, dot, dot...” - easy mode

06

TESTING METHODS/RESULTS

4

TRIALS (PICTURE PROCESS)



MOVEMENT/HAND-EYE COORDINATION

Table 1: The following table displays the heights at which 3 participants caught a ball falling from a metre-stick set on a school desk, before using *mindset*. and after using *mindset*. as well as the total number of clicks made on the game.

Height of metre-stick			100 cm
Measured height of school desk (± 0.05 cm)			75 cm
Participant	Height before <i>mindset</i> . (± 0.05 cm)	Number of clicks on <i>mindset</i> . game “dot, dot, dot...” (easy mode)	Height after <i>mindset</i> . (± 0.05 cm)
1	25.5 cm	101	14 cm
2	37 cm	282	32 cm
3	30 cm	206	23 cm

2 MOVEMENT/HAND-EYE COORDINATION

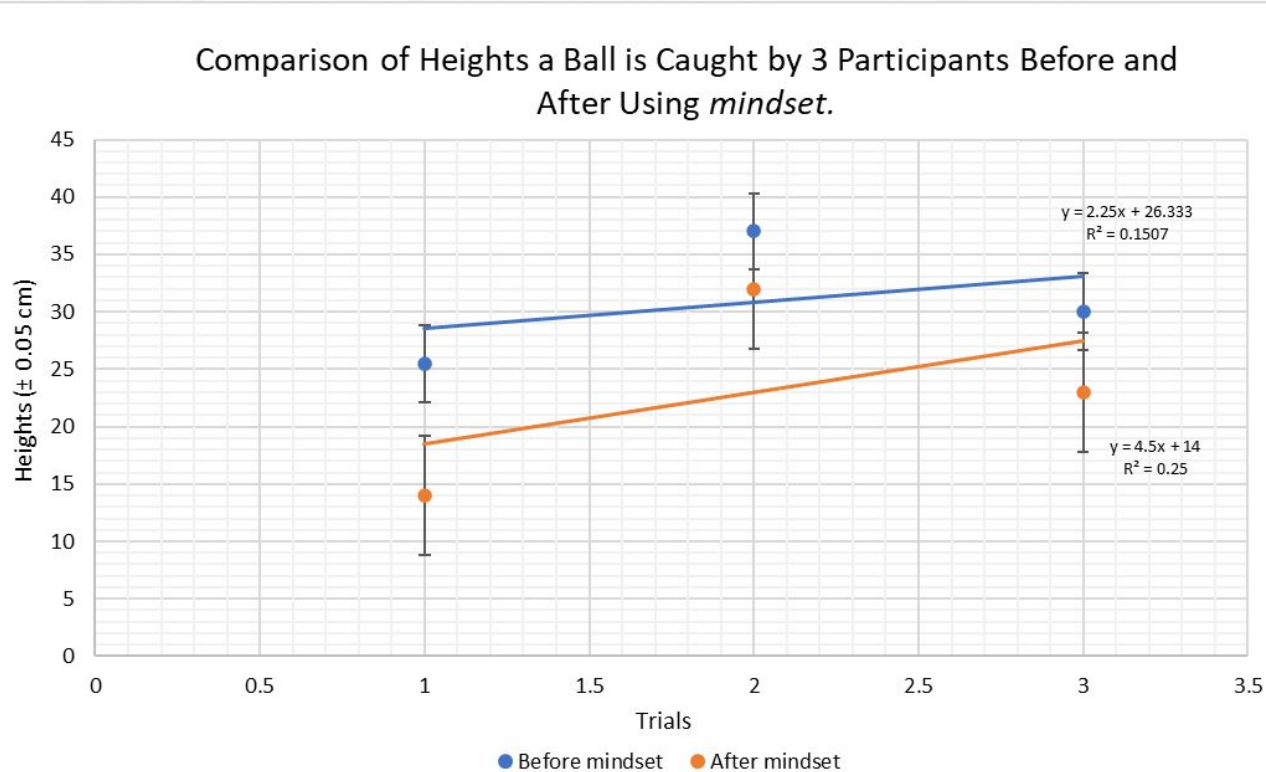


Fig 1. The following graph indicates the heights that 3 participants caught a ball from 175 cm (± 0.05 cm) before and after using mindset. The linear trendlines indicate that after using mindset, users managed to catch the ball at a shorter distance indicating greater concentration and coordination to catch the ball before the target of 30 cm (± 0.05 cm).

07

WHY YOU SHOULD BE A CUSTOMER

WHY *MINDSET.* IS SUPERIOR

<i>MINDSET.</i>	OTHER APPS
<ul style="list-style-type: none">- FREE- PORTABLE AND CONVENIENT- FREQUENT UPDATES- IMPROVE OVERALL BRAIN FUNCTION	<ul style="list-style-type: none">- SUBSCRIPTION MODELS- REQUIRES TIME COMMITMENT- OUTDATED PROGRAMS- BASIC NAME

OUR REVIEWS

"After using mindset, I have become much better at solving problems and my grades have also improved"

"Playing this game everyday has improved my memory. It is a fun and engaging way to practice memorizing abilities. Since playing I no longer forget to take my meds"

"Since using mindset, I have improved my reaction time a lot"