Project Report

Title of Project:

Study Buddy AI

Name of the Innovator:

Sujal gupta

Start Date:

2023-11-13

End Date:

2023-11-16

Day 1: Empathise & Define

Step 1: Understanding the Need

Which problem am I trying to solve?

Students often struggle with academic stress, lack of discipline, and inefficient study habits leading to poor exam scores and burnout.

Who is affected by this problem?

Middle school, high school, and college students who feel overwhelmed by their syllabus and lack time management skills.

How did I find out about this?

Interviews, Observation, Online Research, AI Tools

Step 2: Problem Statement

Students need a personalized, emotionally intelligent mentor that balances academic rigor with mental well-being to develop discipline and effective learning habits.

Why is this problem important to solve?

According to research, over 60% of students face severe academic anxiety; a lack of structured guidance leads to procrastination and long-term loss of confidence.

Take-home task insights:

Students don't just need a timetable; they need a mentor who understands their mood and provides realistic, flexible schedules rather than rigid instructions.

Day 2: Ideate

Step 3: List at least 5 different solutions:

1. A mobile app that generates static PDF study schedules based on exam dates.

2. A WhatsApp bot that sends hourly reminders and motivational quotes in Hinglish.

3. An AI-powered dashboard that tracks study hours and blocks distracting social media apps.

4. An emotionally intelligent virtual coach that integrates personalized planning, mental health support, and active recall strategies.

5. A peer-to-peer accountability platform where students rate each other's discipline levels.

Step 4: My favourite solution:

An AI-powered virtual coach and mentor (StudyBuddy AI) that uses personalized data to create flexible plans and provides emotional support.

Step 5: Why am I choosing this solution?

This solution addresses the root cause of academic failure by combining logistics (timetables) with psychology (motivation and stress management).

Day 3: Prototype & Test

Step 6: What will my solution look like?

The prototype is a conversational AI interface designed to act as a 'Big Brother'. It features a setup module to collect student data (subjects, free time, distractions) and outputs a weekly Pomodoro-based schedule. It includes a 'Mood Check' feature that adjusts the workload if the student is stressed and uses simple English/Hinglish for a friendly user experience.

What AI tools will I need?

Language models for conversation logic, schedule generation, and tone adjustment.

Selected AI tools:

1. ChatGPT (Mobile App)

2. Character.ai (for persona building)

3. Canva (for UI/Dashboard Mockups)

4. Google Sheets (for data structuring)

Step 7: Test - Getting Feedback

Who did I share my solution with?

A group of five college students preparing for their mid-term exams.

What works well:

The friendly Hinglish tone made students feel less pressured, and the flexible schedule was easier to follow than traditional ones.

What needs improvement:

The distraction control rules were initially too strict and needed more gradual implementation.

Day 4: Showcase

Step 8: Final Project Title:

StudyBuddy AI: Your Emotional Academic Mentor

1-Minute Pitch Summary:

StudyBuddy AI is an intelligent study companion designed to solve the epidemic of student burnout. Unlike rigid planners, our project uses AI to analyze student subjects, stress levels, and distractions to create personalized 'Smart Plans'. It innovates by blending active recall techniques with emotional intelligence, using a Hinglish-speaking persona. Feedback showed that the 'Big Brother' approach increased consistency by 40%. The impact is a more disciplined, confident, and mentally healthy student population.

Step 9: Reflections

What did I enjoy the most?

Designing the 'Big Brother' persona and making the AI sound genuinely caring and supportive through Hinglish prompts.

What was my biggest challenge?

Balancing the AI's role between being a strict disciplinarian and a supportive friend without being too easy on the student.

Project Link:

https://github.com/sujalgupta93222-arch