BrainBridge

Enhancing Classroom Engagement: A Multifaceted Tool for Managing Attention Difficulties

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Motivation

- ADHD affects classroom **performance**
- **Limited** teacher-parent **collaboration**
- **Lack** of **personalized** interventions
- **No unified** platform for **stakeholders**

Our platform **bridges this gap** by translating diagnostic findings into **personalized, actionable interventions**.

Our Solution

- **Cross-platform** accessibility
- **Role-specific** interfaces
- **Real-time** collaboration
- **Personalized** recommendations

Built on NODUS ADHD diagnostic system
Delivers tailored, non-pharmacological recommendations across home, school, and daily routines

Target Users

🎓 **Teachers**
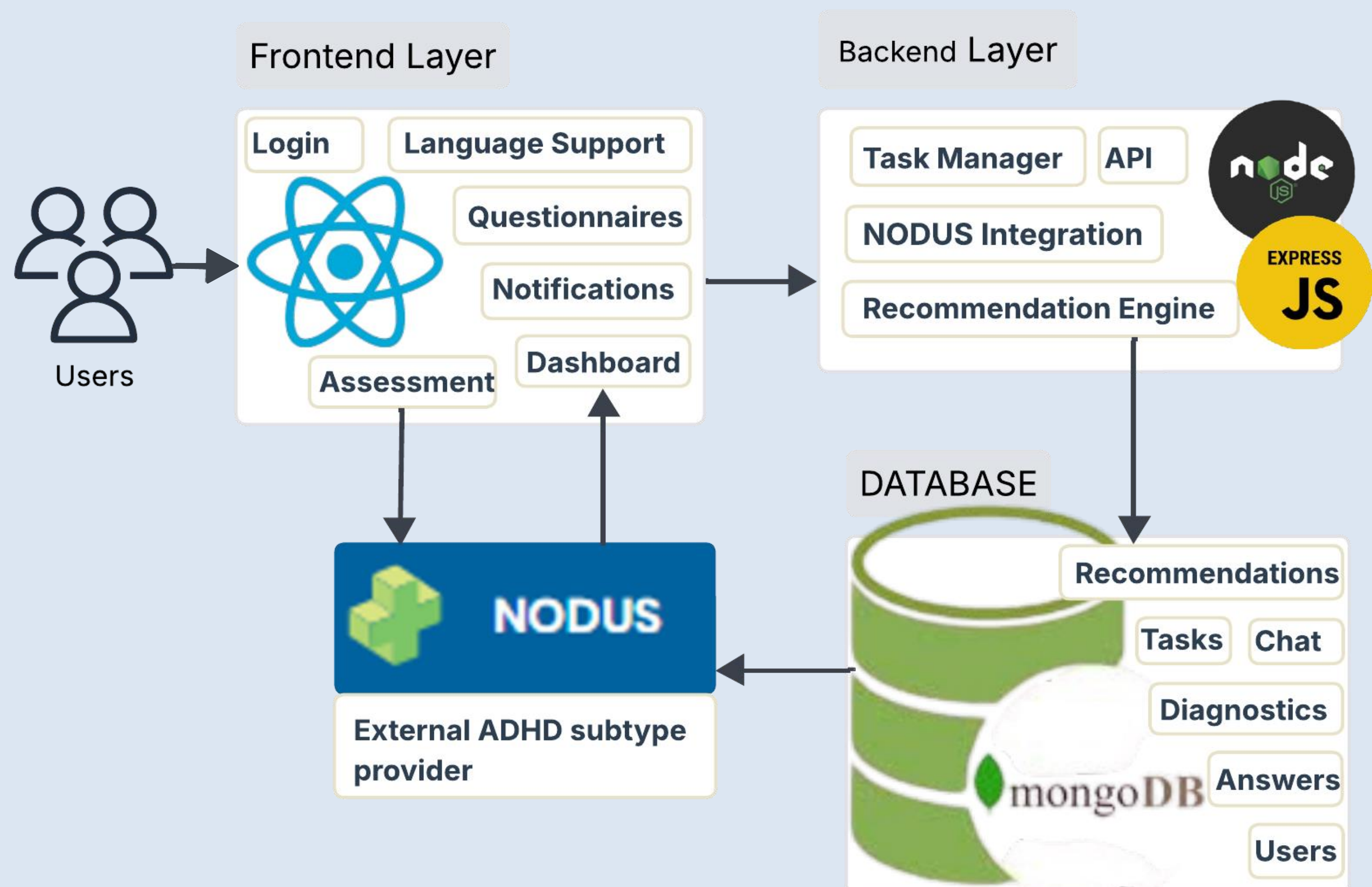Task assignment, behavioral assasment, connection with parent.

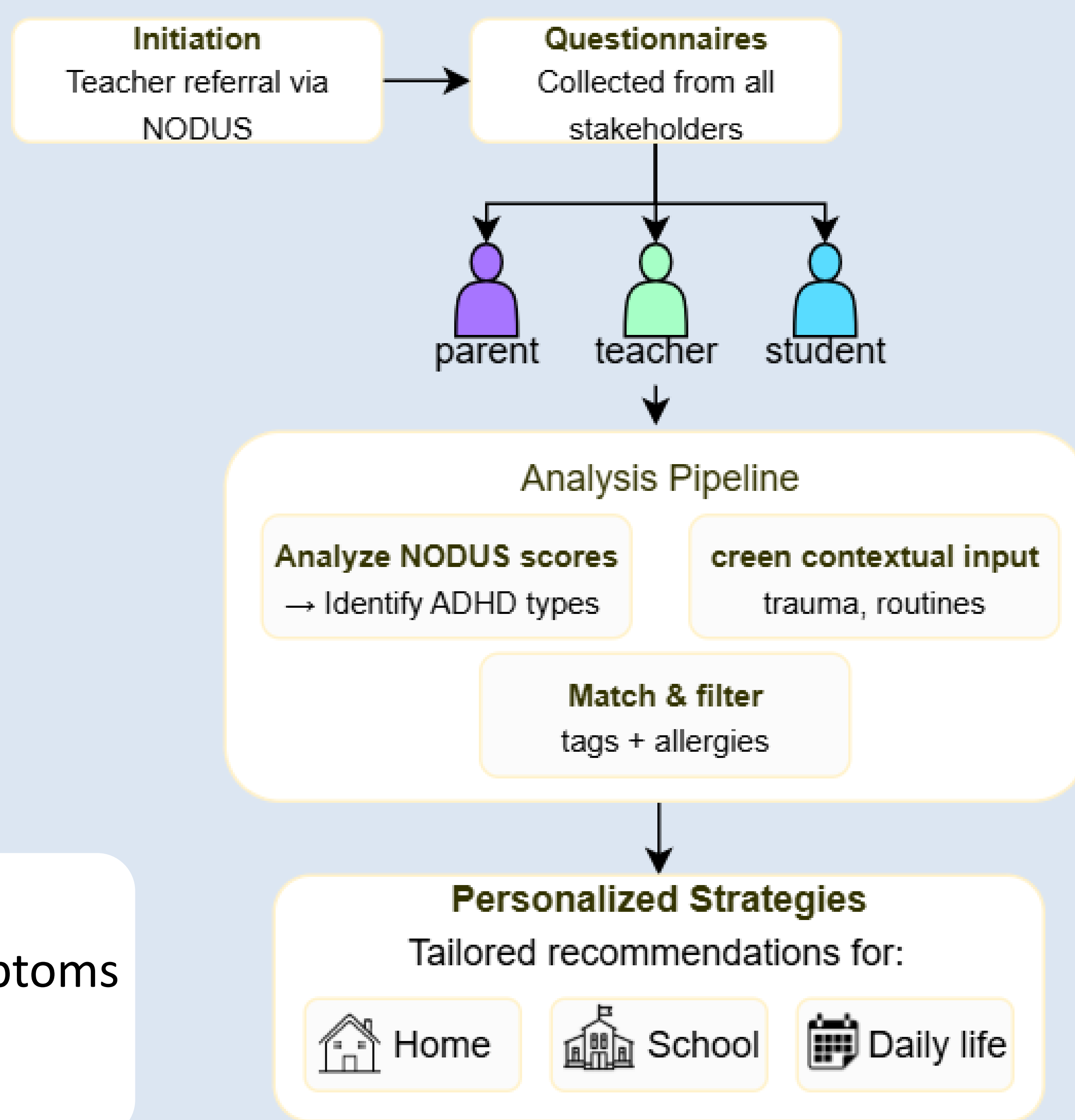👨‍👩‍👧 **Parents**
Home support, communication with teacher.

🧑‍🎓 **Students**
Daily tasks, time extension, recommendations.

System Architecture

Frontend Layer: Login, Language Support, Questionnaires, Notifications, Assessment, Dashboard — Users
Backend Layer: Task Manager, API, NODUS Integration, Recommendation Engine — node, EXPRESS JS
External ADHD subtype provider — NODUS
DATABASE: Recommendations, Tasks, Chat, Diagnostics, Answers, Users — mongoDB

System & Recommendations Workflow

Initiation — Teacher referral via NODUS
Questionnaires — Collected from all stakeholders
parent, teacher, student

Analysis Pipeline
- **Analyze NODUS scores** → Identify ADHD types
- **creen contextual input** trauma, routines
- **Match & filter** tags + allergies

Personalized Strategies
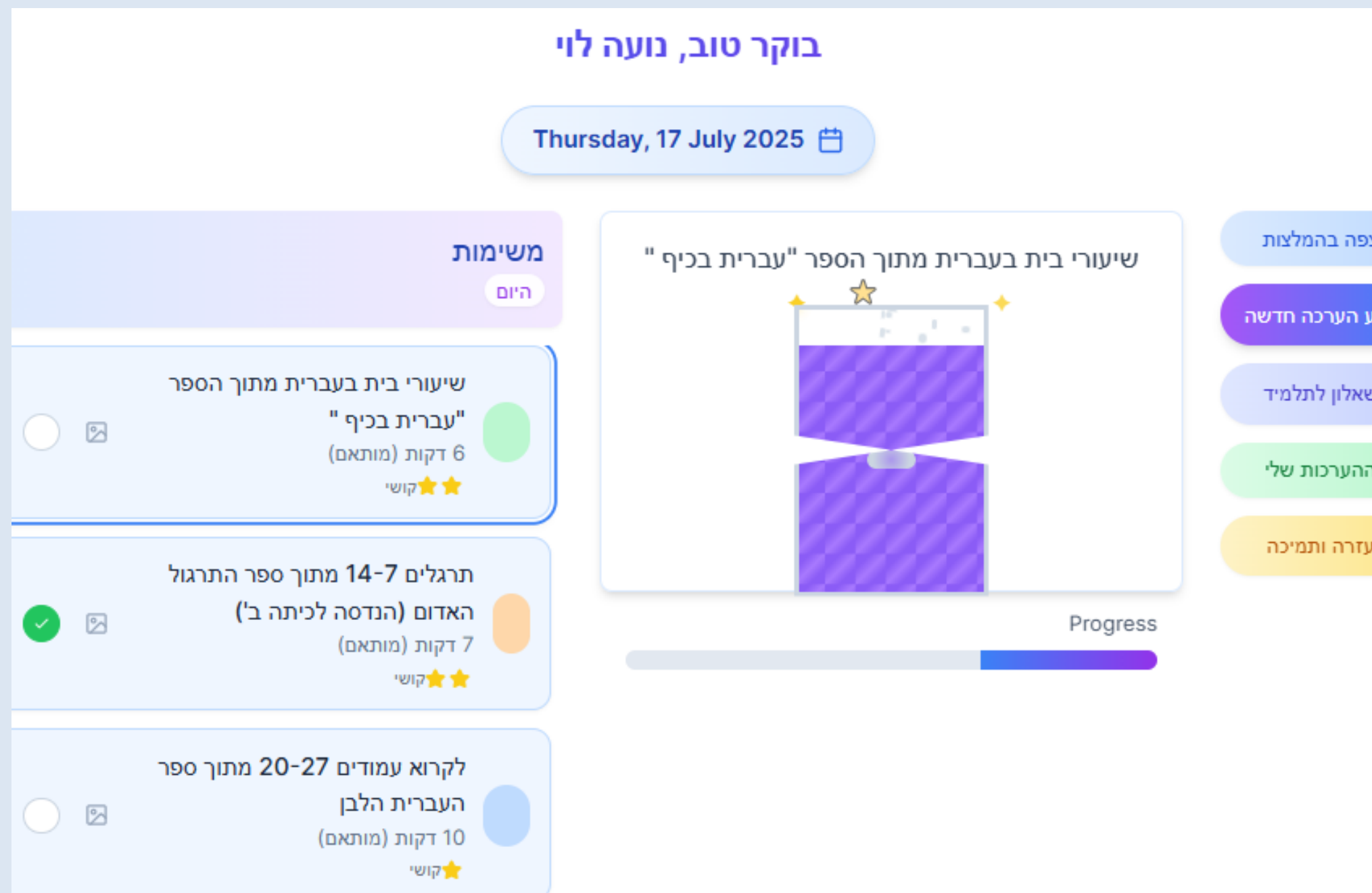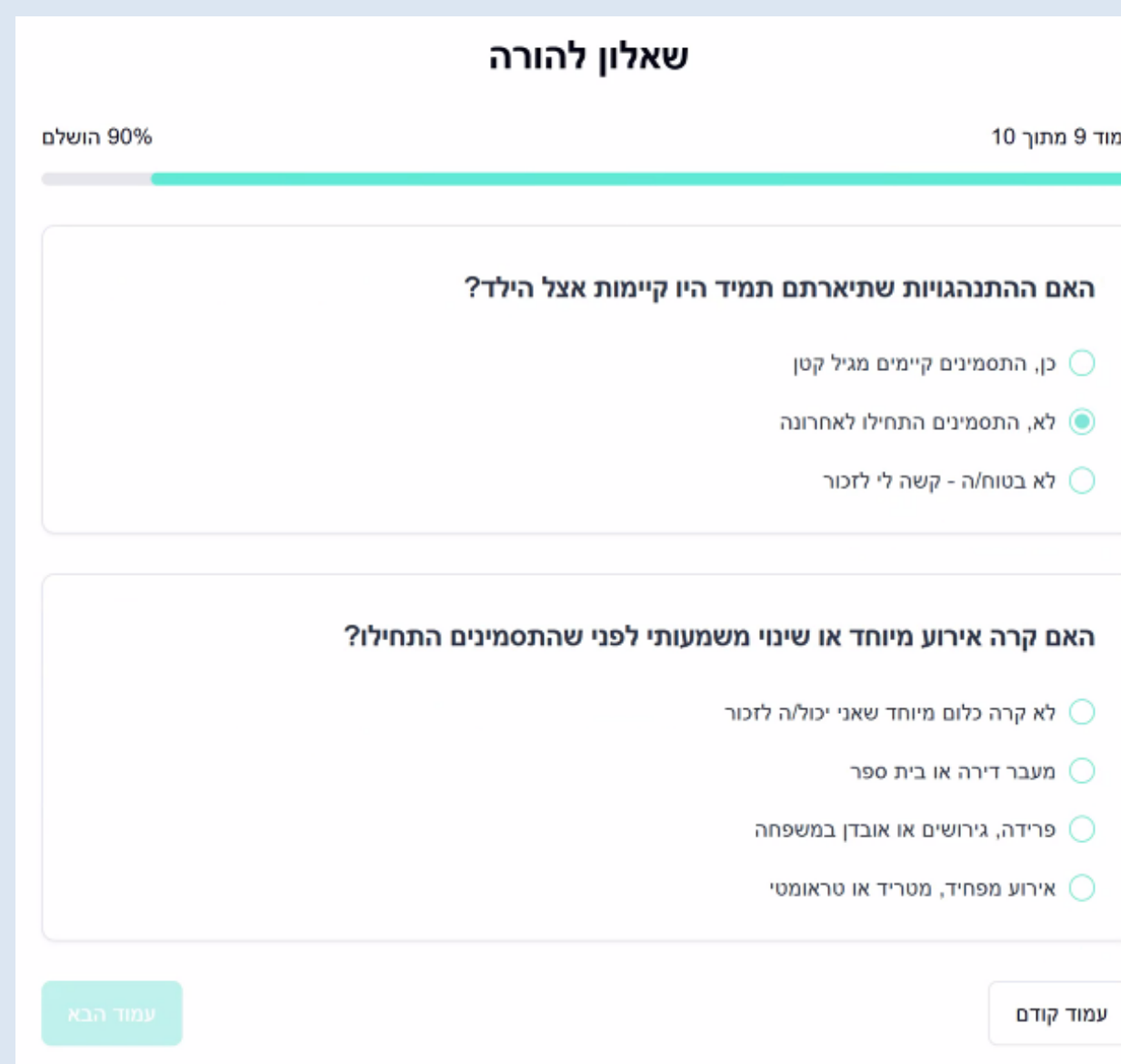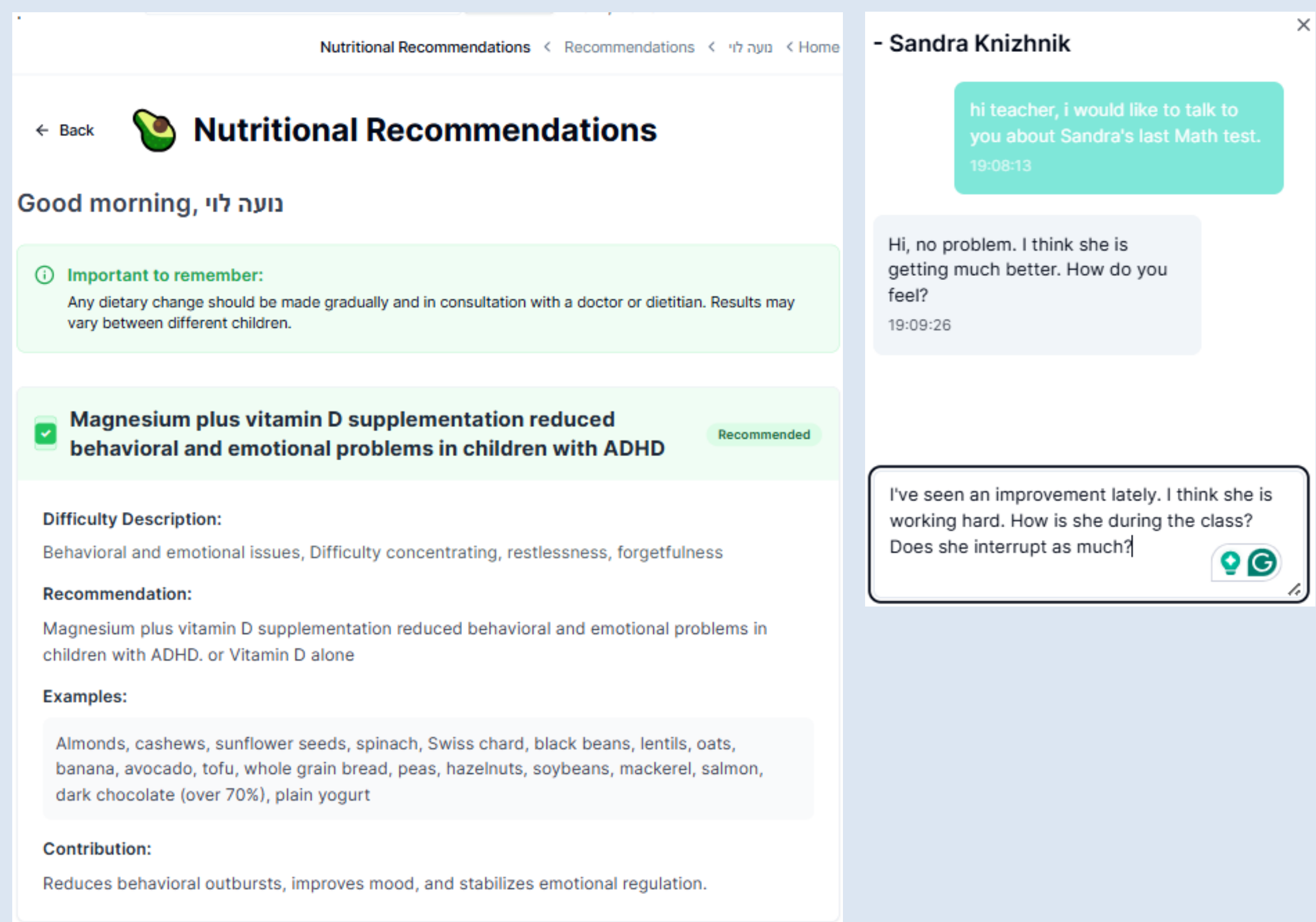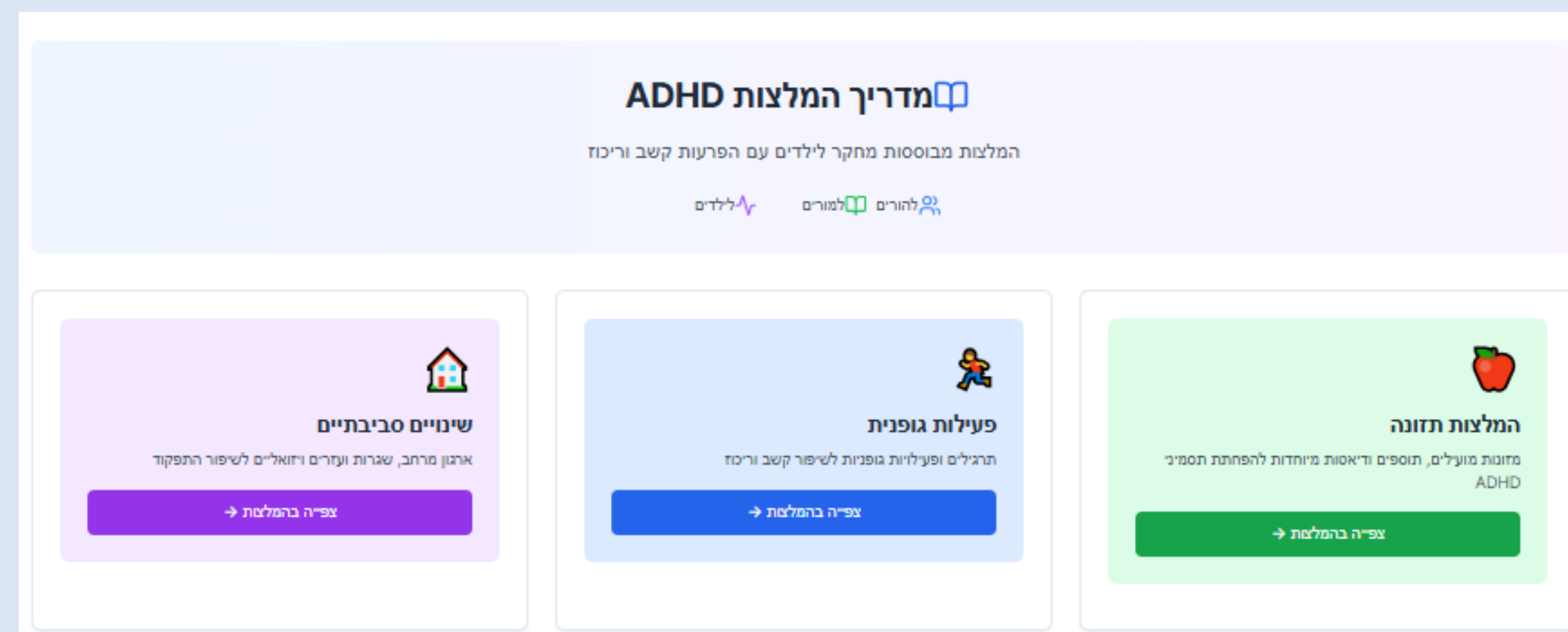Tailored recommendations for: 🏠 Home, 🏫 School, 📅 Daily life

Expert Insight: Liora Gaz
Neurofeedback Specialist & Teacher Training Expert

"Not all attention issues equal ADHD. The key is bridging symptoms with environmental context to provide truly effective interventions."

Main screens application

Usability Evaluation - SUS Results

Score: 83.75 → Good usability

- Add visuals to recommendations
- Let teachers track progress & schedule
- Increase parent involvement

Question	Type	Adjusted Score
1. I would like to use the system frequently	POSITIVE	3.5
2. I found the platform very confusing	NEGATIVE	2.75
3. I thought the system was easy to use	POSITIVE	3.75
4. I think I would need tech support	NEGATIVE	3.5
5. The different features integrated well	POSITIVE	4
6. I noticed inconsistent recommendations	NEGATIVE	2.25
7. Other people would learn this quickly	POSITIVE	4
8. I found the platform very slow	NEGATIVE	3.75
9. I felt confident navigating	POSITIVE	3.75
10. I needed to learn a lot first	NEGATIVE	3.75
**Total Adjusted Score: 35.0	Final SUS Score: 83.75**		