MINDOLOG

Group Biber

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- Problem & Solution
- Motivation
- Specific Features of the System
- Demo Video



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 Brain Waves Based Psychological Rehabilitation
By using neuro-feedbacks provided from Brain Computer Interface Devices (BCID).



• Attention Deficiency > A game environment > Interacts with the user's brain waves Proceeds according to a psychological test > Can be played over scheduled sessions





Motivation

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Demo Video







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Features - Psychologist

Patient Management: Registration, List, Update, Delete, etc.



Features - Psychologist

View / Compare the Progress of the Patients Graphically



Features - Patient

See History



Back



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Background Information

Cognitive Property: Brain waves are input to the game. Monitoring Property: Brain waves are output from the game.

GAME





















Frames per second: 320

Brain Waves Change



Monitoring Property

- N-Back Memory Test:
 - Remember a sequence of letters
 - Follow the sequence
 - Length of the sequence = level



PUF

Game Behavior Change



- Cognitive Property
- Brain waves:
 - > High-level
 - > Middle-level
 - Low-level
- Changing part: Speed of the car
 - Low-level: increase speed
 - > Higher levels: decrease speed









The Game

• Another cognitive method:

- > Transparency of the letters
- > Low-level: Transparency increases
- > Higher levels: Opaque increases

Notes

- Every user has different middle-level
 - > Initial test before playing game
- Level = length of the sequence to be remembered
- Above a HIT / MISS rate = pass the current level



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