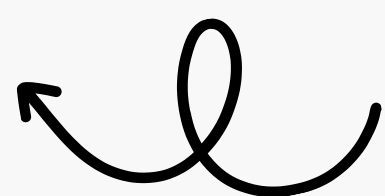


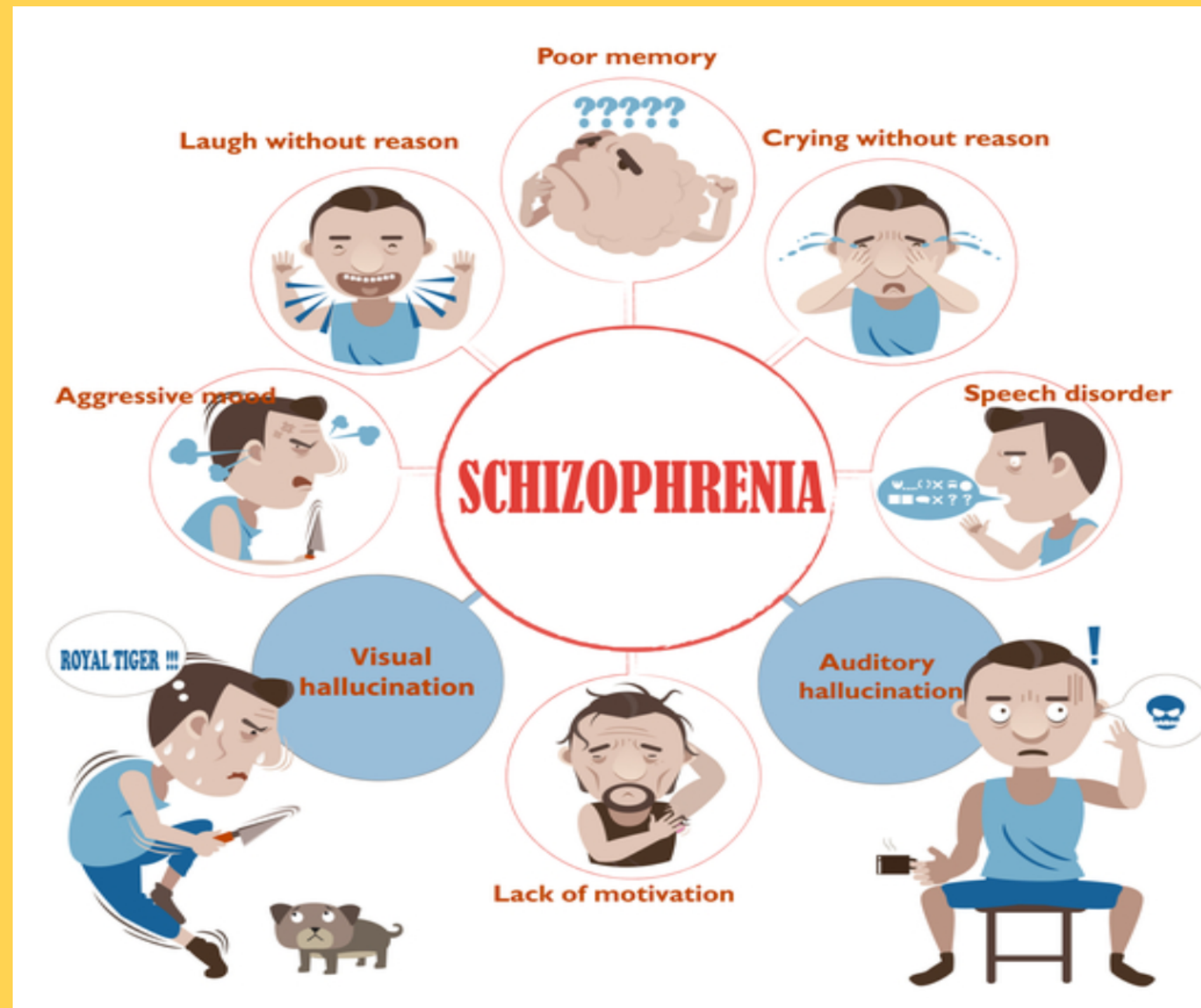


TOOL FOR DYSFLUENCY USING INTELLIGENCE SYSTEM

Guided by: Reena Pagare
Presentation by: Raviraj
Bhandari



What is Schizophrenia?



X X

**Domains
we'll be
focusing on**



Theory Of Mind



Attributional bias



Emotional Processing

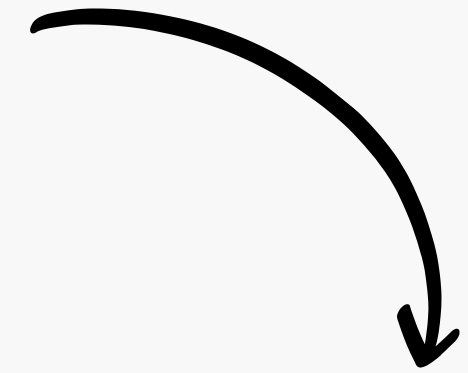
Comparison

PARAMETERS	EXISTING PRODUCT	PROPOSED PRODUCT
METHODS	Classic treatment lineups are used. Different tools like the brain boosters games app.	It will be a web based application.
COST-BENEFIT ANALYSIS	Extra costs for hardware and maintenance.	In-built Hardware Software : Animation softwares , speech recognition tools , visual recognition tools
LANGUAGES	Only English	Will be available in regional languages (hindi & Marathi) apart from english

X

X

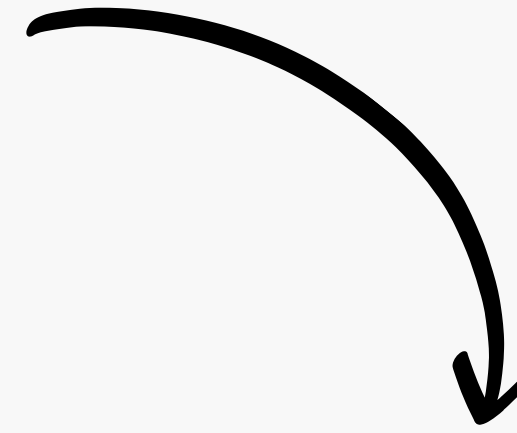
Comparison



PARAMETERS	EXISTING PRODUCT	PROPOSED PRODUCT
TECHNOLOGY	<ul style="list-style-type: none">- Different games like brain-boosters. For remediation- No indian tool for assessment and remediation	<ul style="list-style-type: none">- Html /css- Animation languages /software - blender /opengl- Aspire - audio/visual tools
ADVANTAGES and DISADVANTAGES	<ul style="list-style-type: none">- costly- Not available in regional language	<ul style="list-style-type: none">- Cost effective- Regional language so more user friendly- Assessment and remediation analysis both can be obtained using same tool- Easy to monitor the progress of the patient- Data storage and monitoring will be easy



Remediation



1. Will develop a tool for assessment and remediation program for social cognition and life skills
2. Will give an analysis of different parameters of social cognition pre and post-remediation.
3. Will give analysis and provide visualization of the symptoms based on these parameters



Assessment




1. The proposed System will conduct tests on the patients or any individual in the form of activities to improve their social cognitive skills by conducting brain games, puzzles, questionnaires, etc.

1. The overall activity will be monitored by the psychiatrist and medical experts and based on the score generated from the above activities it will give analysis report.

1. This activity will also monitor, analyze and give or suggest different facts or methods to overcome them.



Dashboard

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Personality Test

1. People around me say that I am good at interacting with people in social situations

☐ Always☐ Frequently☐ Often☐ Rarely☐ Never


2. When I speak something, people laugh at me

☐ Always☐ Frequently☐ Often☐ Rarely☐ Never

3. People who speak in loud voices are shouting at me

☐ Always☐ Frequently☐ Often☐ Rarely☐ Never

Dashboard

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Evaluation

You have average Social understanding.

Responses

1. People around me say that I am good at interacting with people in social situations


☐ Always☒ Frequently☐ Often☐ Rarely☐ Never

2. When I speak something, people laugh at me

☐ Always☐ Frequently☐ Often☒ Rarely☐ Never

3. People who speak in loud voices are shouting at me

Dashboard



Create new Account

[Already Registered? Login](#)

Please enter your name

Please enter Email

Please enter password

Please enter date of birth

[SIGN UP](#)

Prototype



Value Proposition

PRODUCT

GAIN CREATORS:

- subscription method
- activity-based assessment tool
- assessment and remediation obtained by the same product

PRODUCT:

Tool for assessment and remediation of impaired social cognition

PAIN

RELIEVERS:

- available in Hindi, English, & Marathi.
- pocket-friendly
- urban & rural areas
- animations to make it user friendly

CUSTOMER

GAINS:

- clinical guidance
- plans for remediation
- user-friendly product

CUSTOMER NEEDS:

- improving impaired social cognition
- assessment and remediation tool
- reduce economic and social burden

PAINS:

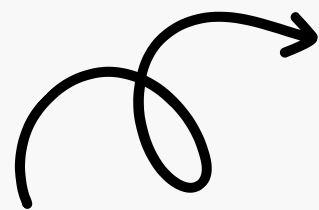
- not available for rural population.
- costly
- assessment tools only available in English

Customers :

Psychiatrists
Psychologists
Caregivers
Patients
Rehabilitation centers

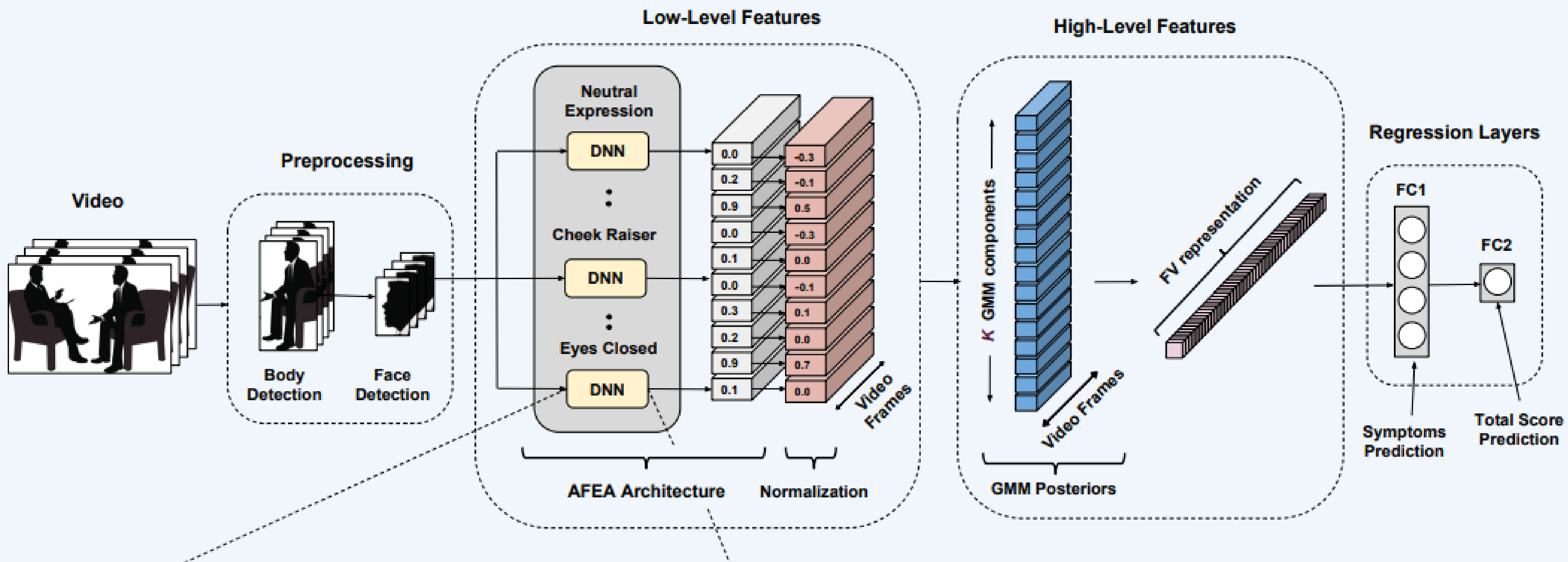
Return of Investment (ROI): In the initial phase it may have a slow pace for the net profit, but as time goes it will gain profit up to 10%-20% more than the Cost of Investment.

Survey Summary



Sr.no.	Year	Learning technique	Feature extraction Technique	Classification Technique	Image/word classification
1	2019	Machine Learning	LIWC, Diction Feature, Disvoice feature Conversational features, OpenSmile	Ensemble technique, LOOC validation and LDA	Both Image and word classification
2	2018	Deep Learning	Brainnetome atlas, SGD	DNN and SVM	Image Classification
3	2019		Gaussian Mixture model (GMM), Vector fisher (VF)	DNN (SciNet) architecture (Own AFEA Method)	Image Classification
4	2020	Deep learning	VAR and PDC	MDC-CNN	Image and word Classification
5	2018	Artificial Intelligence	FFT+ Factor analysis	CNN	Both word and sentence





Web Application

Conducting games
puzzles and
questionnaires'

Pre-processing
gesture and
audio signal

Feature
extraction

Assessment method

Pre remediation

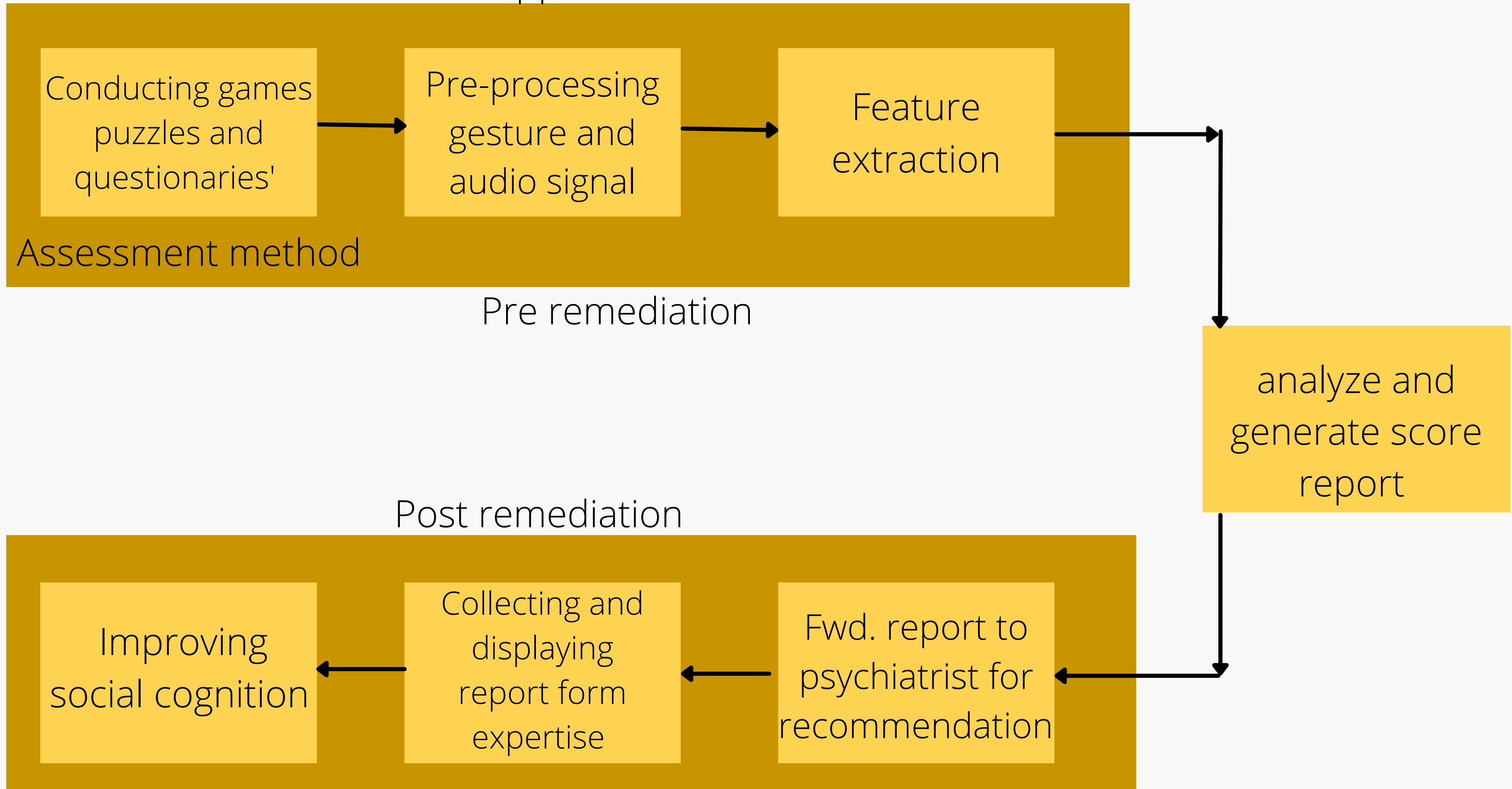
analyze and
generate score
report

Post remediation

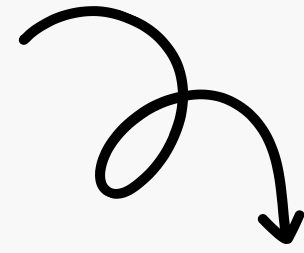
Improving
social cognition

Collecting and
displaying
report form
expertise

Fwd. report to
psychiatrist for
recommendation



X X



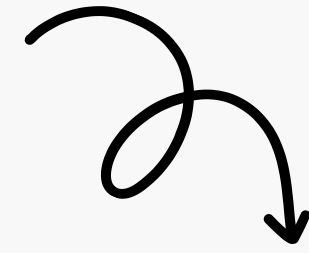
Pre-remediation will help to know the patients behavior or nature

Conclusion

Conducting assessment will ease the work of psychiatrist



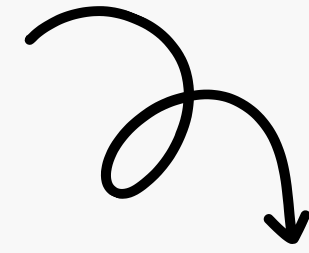
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Thank you!

Any Questions?

