

Predictive Model for Teenagers' Skills

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Metrics

6 Distinctive Variables

- "validity"
- "clip1_validity"
- "Clip2_validity"
- "clip3_validity"
- "Answer_validity"
- Final Skill Stars

Weights for validity

+1: validity passed (return True)

-1: validity failed (return False)

In [8]: finalGlobal

Out[8]:

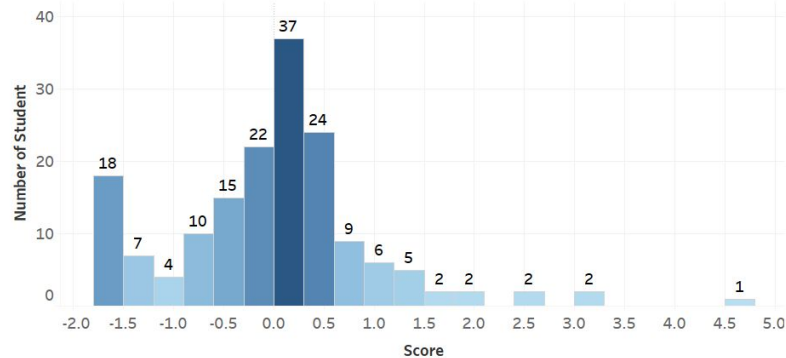
	player_id	Refuse	Priority	People	Knowledge	Know Star	Priority Star	People Star	Refusal Star
0	6427001.0	150.0	1520.0	798.0	176.0	30.0	30.0	29.0	26.0
1	6427002.0	0.0	160.0	132.0	17.0	3.0	3.0	3.0	0.0
2	6427004.0	102.0	1570.0	1077.0	250.0	29.0	29.0	29.0	28.0
3	6427005.0	0.0	165.0	98.0	0.0	0.0	0.0	3.0	0.0
4	6427006.0	106.0	1510.0	770.0	161.0	29.0	30.0	27.0	30.0
...
161	6626006.0	9.0	475.0	25.0	28.0	6.0	6.0	6.0	7.0
162	6626007.0	52.0	465.0	297.0	29.0	15.0	13.0	15.0	18.0
163	7540835.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164	65670031.0	100.0	1505.0	472.0	89.0	26.0	30.0	27.0	30.0
165	65670032.0	56.0	760.0	357.0	69.0	12.0	15.0	17.0	21.0

166 rows × 9 columns

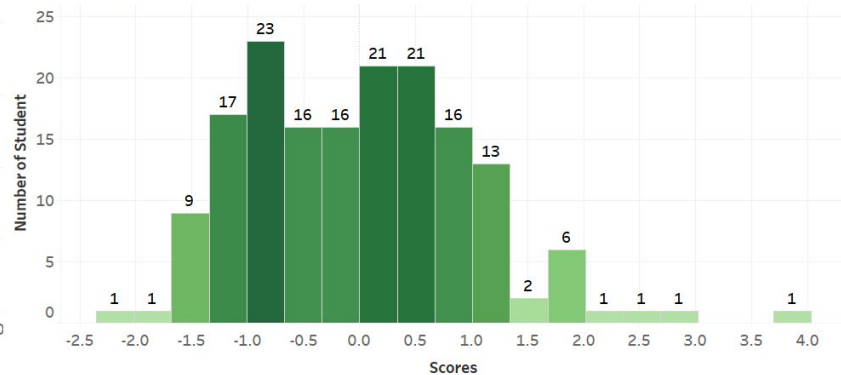
Metrics: Combined Scores = Final_Skills_Stars * α + Progress_Scores

Data Investigation

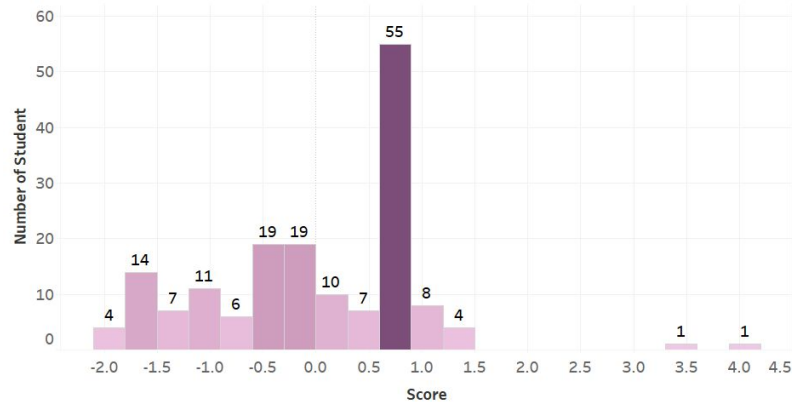
Refuse Combined Scores



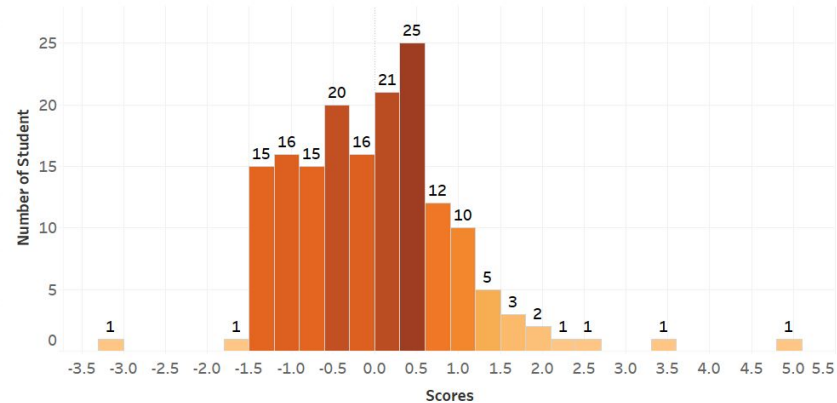
Knowledge Combined Scores



Priority Combined Scores

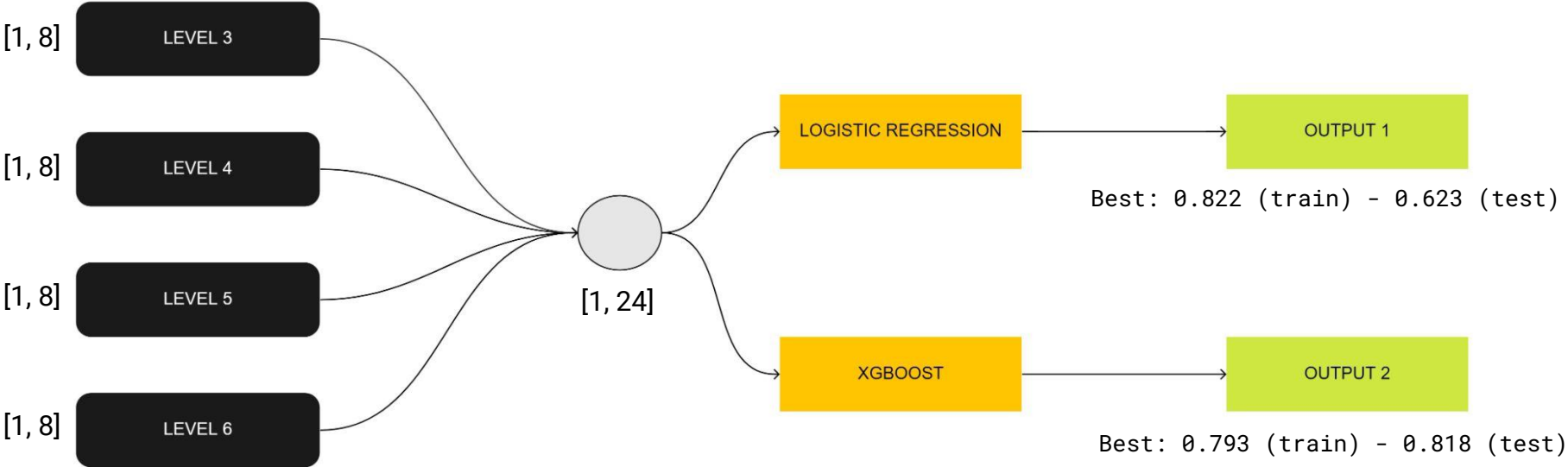


People Combined Scores



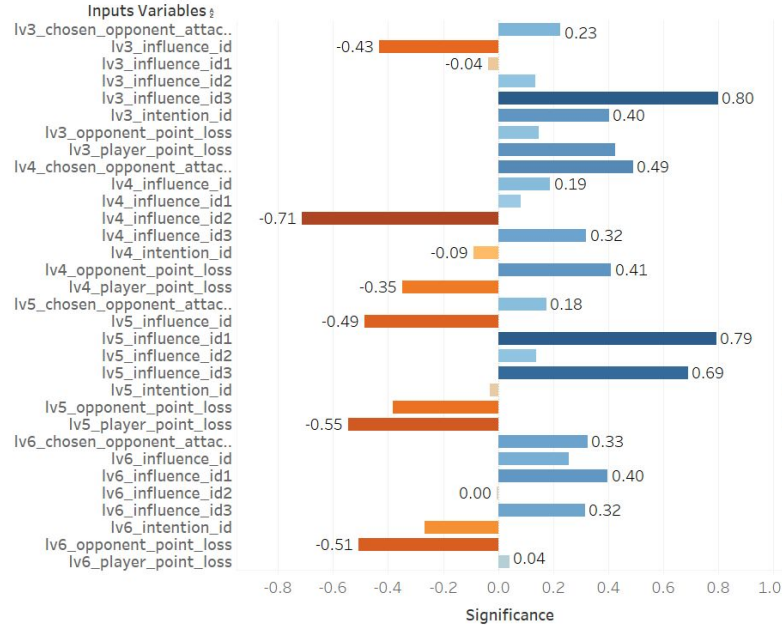
8 Input Variables	
player_point_loss	opponent_point_loss
intention_id	influence_id
influence_id1	influence_id2
influence_id3	chosen_opponent_attack_type_id

Refusal Predictive Model



Importance Variables

Variables Significance (Logistic Regression)



Variables Significance (XGBoost)

