

Cogynt.ai Student Safety Application

Preliminary Evaluation of Risk Assessment Solution

Ten school safety risk assessment scenarios, taken from real-world case files, were used to evaluate the performance of the Cogynt.ai SOFIT-based risk model, tailored for violence and suicidal ideation risk assessment (approximately 150 out of a total of about 200 SOFIT potential risk indicators (PRIs) were relevant to these types of threat behaviors). The relevant PRIs are associated with twelve categories of risk related to **direct or implied threats, weapons/firearm references, cyber activity**, prior **disciplinary/criminal history**, **destabilizing home or relationship** factors, academic/work-based **stressors, financial stressors, mental health concerns, extremist/radicalization** indicators, and concerning **interpersonal behaviors**. In addition, the tool can take relevant **protective factors** into account.

Cogility's Cogynt.ai Decision Intelligence Platform provides the ultimate expert-informed Structured Professional Judgment approach to violence risk assessment.

Representative School Safety Scenarios

Scenarios like the following, including actual outcomes, were used to evaluate the model's triage performance:

Scenario #5: Locker Knife Disclosure

- A 7th grader was referred for assessment after peers reported that the student claimed to have **brought a folding knife to school**.
- The statement reportedly occurred near the lockers, where the student told a small group of friends that they were **tired of being pushed around** and that **someone was going to "pay for it" that day**.
- One peer immediately reported the concern to a hallway monitor.
- Review of available information indicates no known prior threats, criminal activity, destabilizing environmental factors, academic stressors, financial stressors, cyber-related concerns, extremist concerns, or mental health concerns
- Staff have noted that the student **struggles to establish positive friendships**, but no additional school behavior concerns have been documented.

	<u>Violence</u>	<u>Suicide</u>
Expert Assessment	HIGH	n/a
Cogynt Model:	80 (High) ☒	17 (n/a)

Scenario #7: Withdrawal and Finality Statements

- An elementary school student was referred for assessment after staff observed a sudden and **notable change in behavior**. Teachers described the student as previously quiet, but recently more **withdrawn and socially disconnected**.
- The student also **gave away valued personal belongings**, including a gaming handheld and a watch, to classmates.
- The student told the homeroom teacher, "You won't have to worry about grading my work anymore after today. Everyone will remember me soon."
- Staff have identified **concerns regarding the student's relationships with both peers and adults**.
- Review of available information indicates **no known prior threats**, criminal activity, destabilizing environmental factors, academic stressors, financial stressors, cyber-related concerns, extremist concerns, or mental health history.

	<u>Violence</u>	<u>Suicide</u>
Expert Assessment	n/a	HIGH
Cogynt Model:	71 (Medium)	81 (High) ☒

Summary of Results

The Cogynt.ai model showed excellent agreement with actual triage assessments in these real-world school environments. All cases initially generated triage alerts and were referred for follow-up. Ultimately, cases 1, 4, 5, 7, 8, 9, and 10 were determined to be high risks that mandated mental health counseling and/or further monitoring. Cases 2 and 3 were subsequently deemed low risks. After identifying mitigating factors, Case 6 was assessed to be zero risk.

#	Scenario Label	Actual Triage Assessment		Model Output (Score 0-100)		
		Violence	Suicide	Violence	Suicide	
1	Firearm Social Media Warning	HIGH	LOW	96 HIGH	22 n/a	✓ +
2	Targeted School Floor Plan	n/a	LOW	21 n/a	59 LOW	✓ +
3	Classroom Debate Threat	Medium	n/a	89 HIGH	15 n/a	✓
4	Violent Revenge Warning	LOW	HIGH	44 n/a	73 Medium	✓
5	Locker Knife Disclosure	HIGH	n/a	80 HIGH	17 n/a	✓ +
6	Concerning Search Activity	Medium	n/a	75 Medium	4 n/a	✓ +
7	Withdrawal/Finality Statements	n/a	HIGH	71 Medium	81 HIGH	✓
8	Breakup-Related Threat	HIGH	n/a	97 HIGH	87 HIGH	✓
9	Extremist Ideation and Threat	HIGH	n/a	93 HIGH	25 n/a	✓ +
10	Recess Threat After Altercation	HIGH	HIGH	98 HIGH	42 n/a	✓ -

Implications:

By systematically assessing and quantifying the risk, this expert-AI triage tool can help counselors and risk analysts in the field make more accurate, data informed, auditable, and explainable risk assessments

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