Evaluating How Quality Defense Generates Quality Offense

2024 Hockey Big Data Cup
By Fauzan Lodhi

1 = Defensive zone turnover

2 = Successful zone exit w/o successful zone entry

3 = Successful zone exit + successful zone entry

4 = Successful zone exit + successful zone entry + shot attempt

5 = successful zone exit + successful zone entry + goal

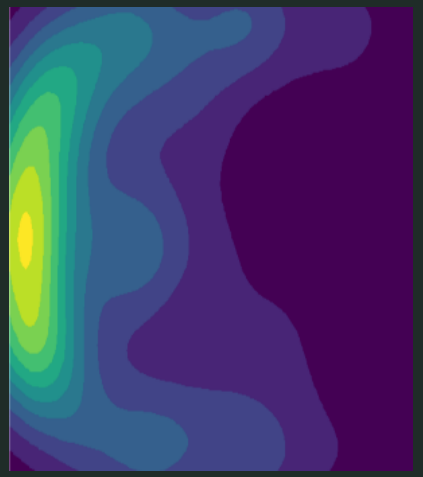
Rating = SUM(score) / (5 x attempts)

Methods & Algorithms

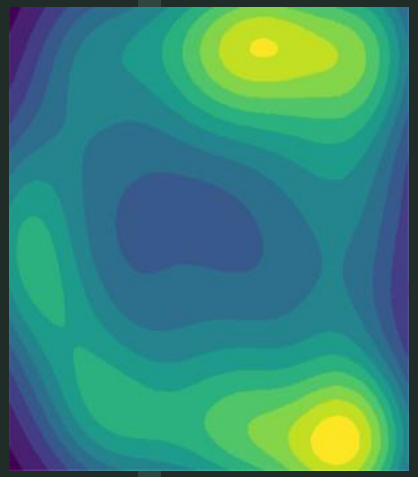
- Aim: accurately evaluate zone exit quality
- Recorded all d-zone plays that moved the puck out of the zone or changed possession
- Created new five-point rating scale to evaluate exit quality

Results & Findings

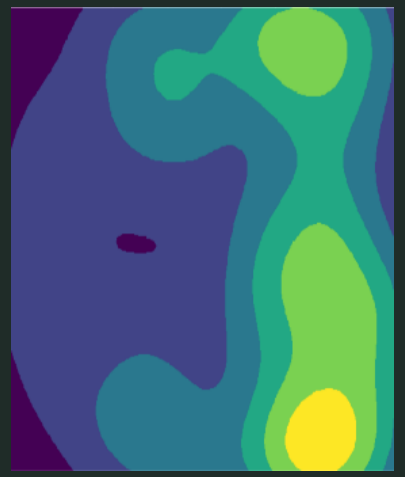
Level 1 Exit



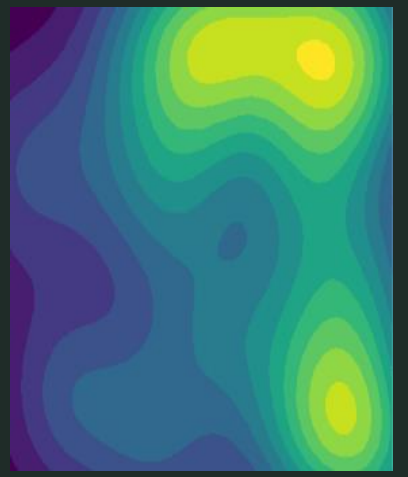
Level 2 Exit



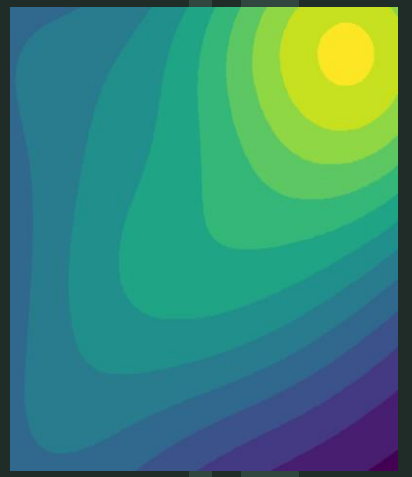
Level 3 Exit



Level 4 Exit

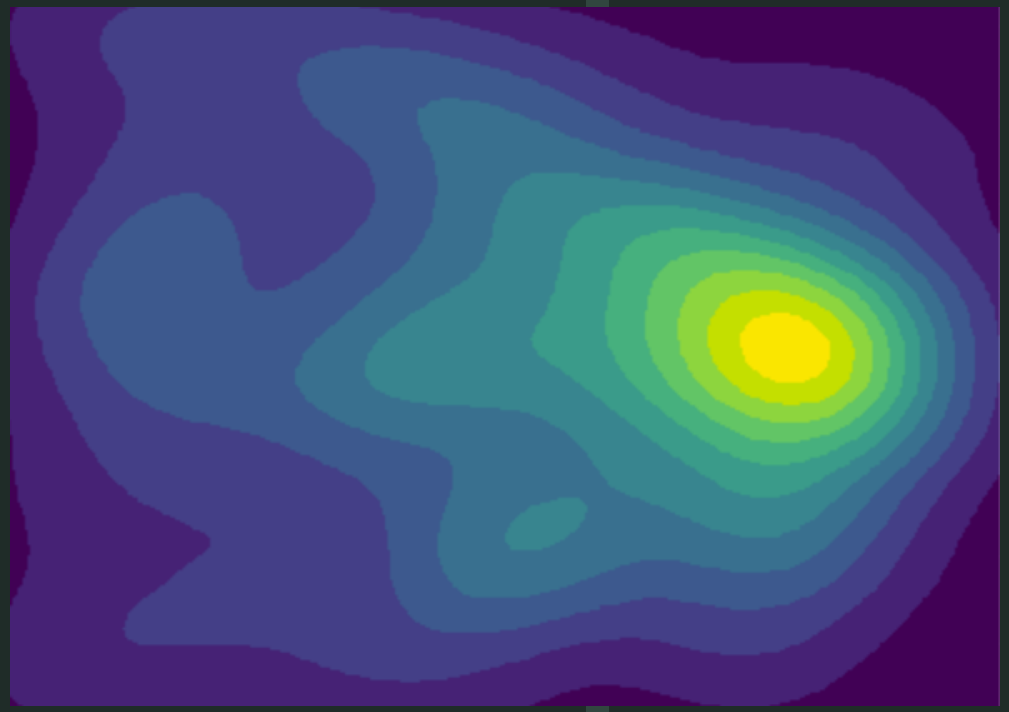


Level 5 Exit



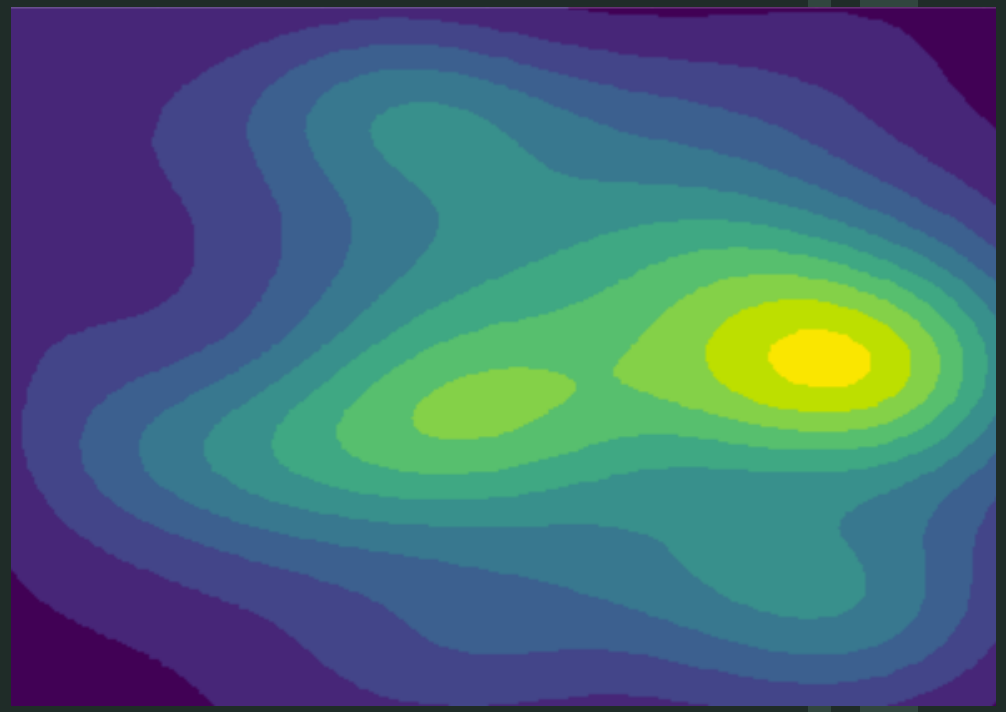
Results & Findings

All shot attempts



4.73% Shooting

Shot attempts off L4 & L5 Zone Exits



8.25% Shooting

Results & Findings

- Most effective zone exit player

  A. Cherkowski - 66.67% (3 attempts)

- Least effective zone exit player

  Ann-Renee Desbiens – 25.71% (7 attempts)

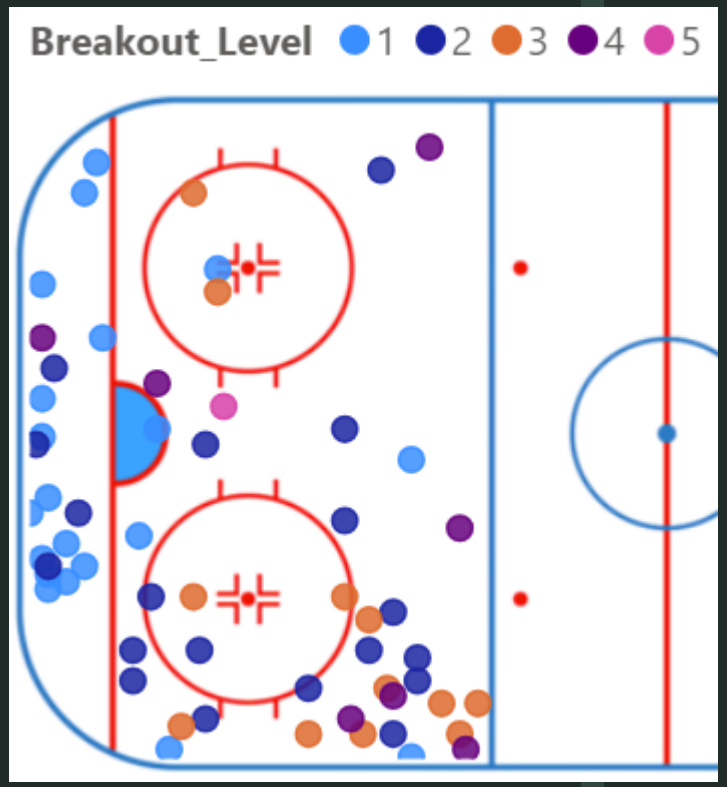
- Most zone exit attempts

  Jocelyne Larocque – 43.87% (62 attempts)

name	score	attempts
Jocelyne Larocque	43.87	62
Savannah Harmon	39.34	61
Renata Fast	45.28	53
Haley Winn	51.43	49
Cayla Barnes	36.44	45
Megan Keller	40	45
Rory Guilday	38.64	44
Ashton Bell	42.33	43
Jamie Bourbonnais	40	41
Ella Shelton	44	40
Marie-Philip Poulin	48	30
Kelly Pannek	38.62	29
Emily Clark	43.2	25
Sarah Nurse	37.39	23
Abby Roque	46.36	22
Caroline Harvey	46.67	21
Taylor Heise	43	20

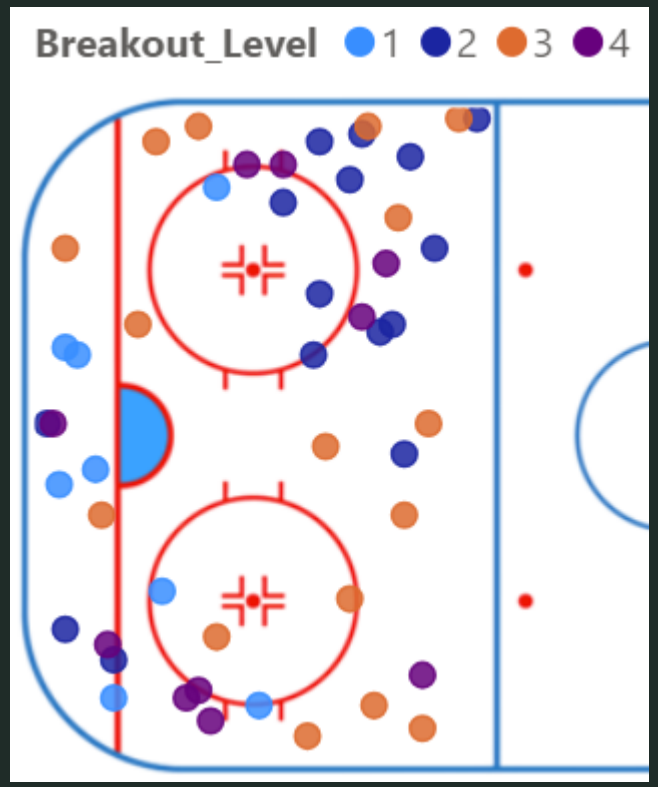
Results & Findings

J. Larocque



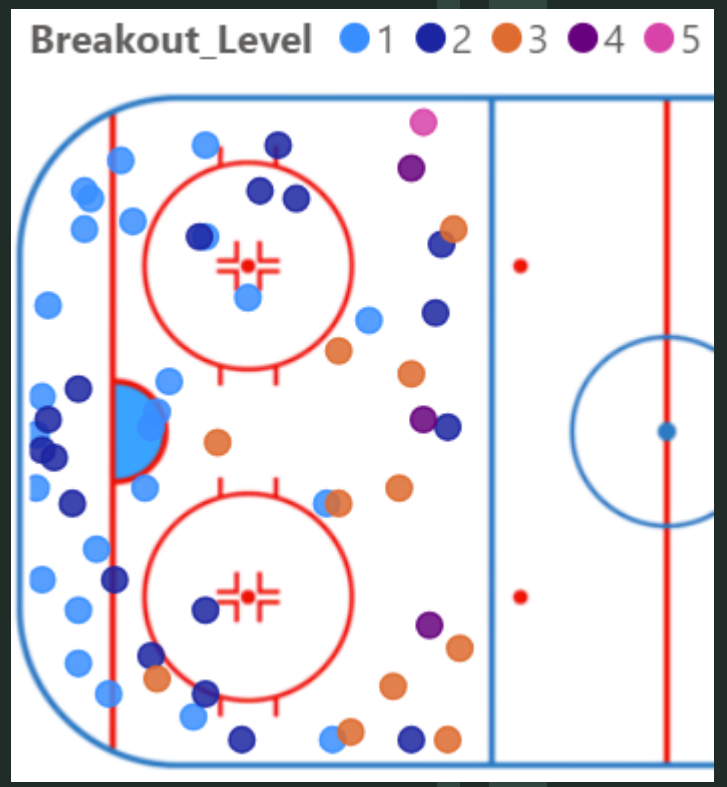
43.87% - 62 attempts

H. Winn



51.43% - 49 attempts

S. Harmon



39.34% - 61 attempts

Application

- Weak areas in defensive zone
- Holes in forecheck formation
- Individual player weak spots
- Targeting players in defensive zone
- Adjusted breakout strategies, passing lanes
- This can entirely reinvent forechecking strategies across the sport

Thank you!