

# Comparison of data presented in Avaluator, page 19, and literature

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The role of Training in recreational Avalanche Accidents in the United States, Ian McCammon, NOLS, ISSW 2000

Evidence of heuristic traps in recreational avalanche accidents, Ian McCammon, NOLS, ISSW 2002

Heuristic Traps in Recreational Avalanche Accidents: Evidence and Implications, Ian McCammon, Avalanche News, No. 68, Spring 2004

Image of the graph from McCammon, 2002

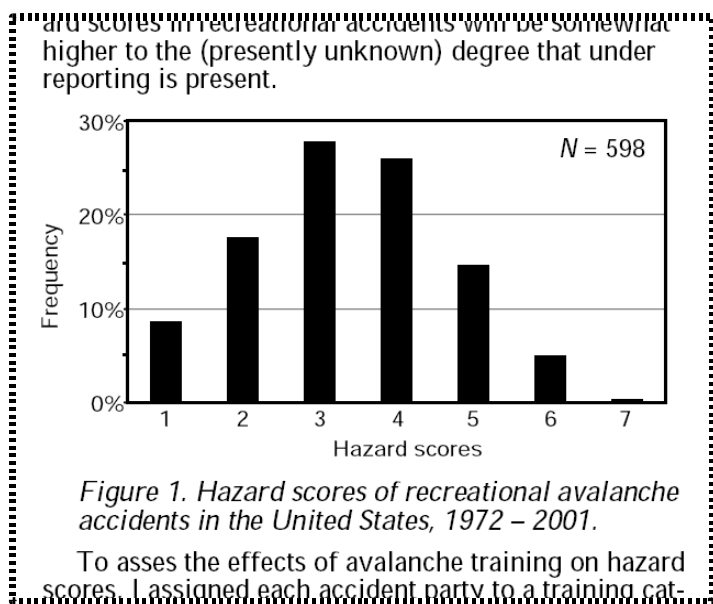


Image of Figure 1 from McCammon, 2004

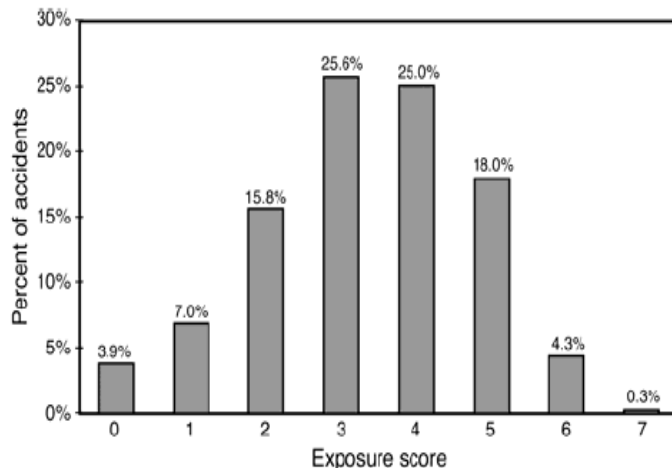


Figure 1. Exposure score frequencies for all accidents in this study, including those where little information was available (N = 715).

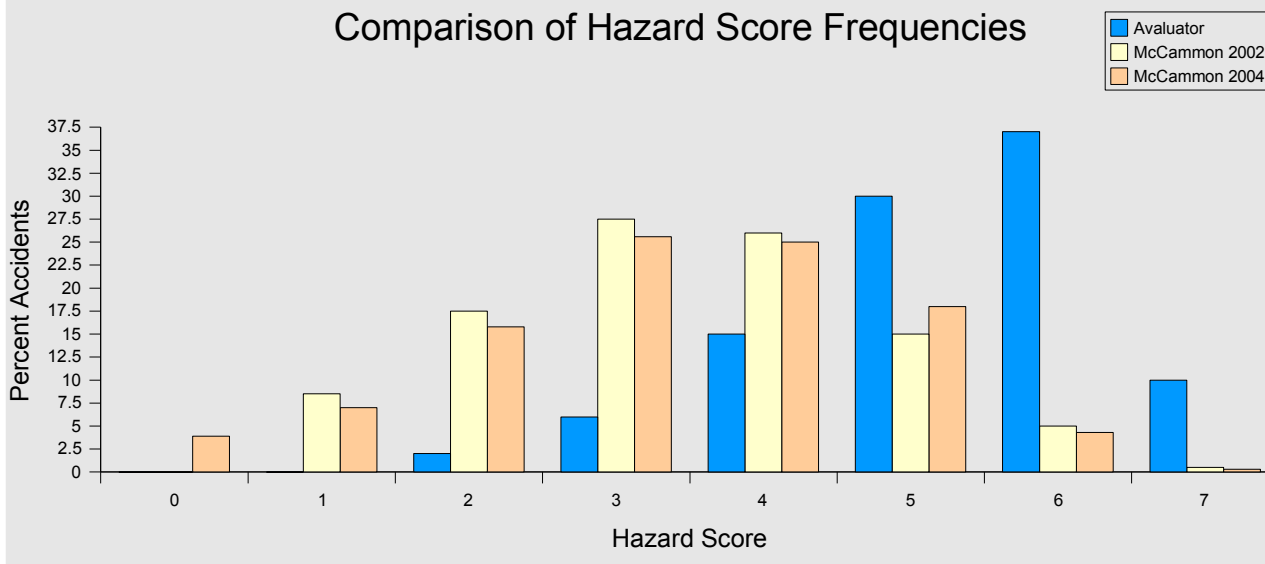
The Canadian Avalanche Centre has a link to background info on Avaluator development, which leads to the above articles. The ADFAR page appears dated. It mentions "Beta testing Card 1", which could possibly be Avaluator prototype?

It appears that Figure 1 from the article (McCammon, 2002), "Hazard scores of recreational avalanche accidents in the US 1972-2001" does not quite compare to the chart in Avaluator. According to article data, the chart should look like this:

Hazard score	Avaluator	McCammo n 2002	McCammo n 2004
0	0	0	3.9
1	0	8.5	7
2	2	17.5	15.8
3	6	27.5	25.6
4	15	26	25
5	30	15	18
6	37	5	4.3
7	10	0.5	0.3

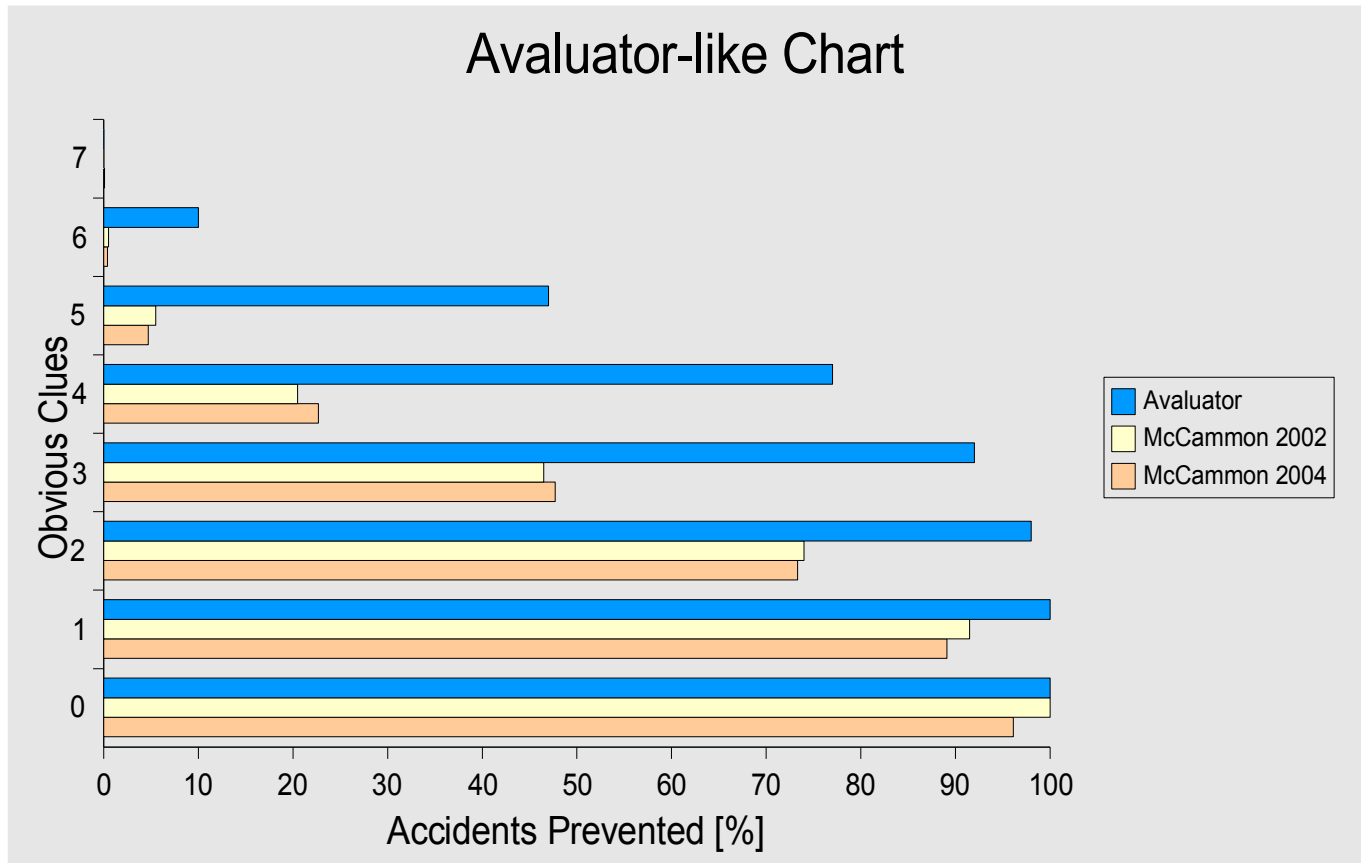
Hazard score	Avaluator Σ	McCammo n 2002 Σ	McCammo n 2004 Σ
0	0	0	3.9
1	0	8.5	10.9
2	2	26	26.7
3	8	53.5	52.3
4	23	79.5	77.3
5	53	94.5	95.3
6	90	99.5	99.6
7	100	100	99.9

## Comparison of Hazard Score Frequencies



Obvious Clues	Avaluator	McCammon 2002	McCammon 2004
7	0	0	0.1
6	10	0.5	0.4
5	47	5.5	4.7
4	77	20.5	22.7
3	92	46.5	47.7
2	98	74	73.3
1	100	91.5	89.1
0	100	100	96.1

## Avaluator-like Chart



### Conclusion:

The research data presented in both 2002 and 2004 articles appear to be in good agreement. If the research data are correct, then Avaluator significantly overestimates accidents prevented.

E.g., Using the "4 or less" clues criteria, user will incorrectly believe that they would prevent 77% of accidents, while according to the research data they would only prevent 21% or 23%.

**The Avaluator Card may lead to accidents and/or deaths by giving users false confidence in the stability of the snowpack!**