

## **RESULTS with BLEU SCORES**

Real Caption: black dog is digging in the snow

**Greedy Search**: black dog is running through the snow.(BLEU:59.7)

Beam Search(b=3): dog is digging in the snow.(BLEU :65.04)
Beam Search(b=7): the dog is digging in the snow.(BLEU :65.04)
Beam Search(b=10): a dog is digging in the snow.(BLEU :85.51)

**Observation**: Beam Search(b=10) is more meaningful here.



**Real Caption**: three people walking along a stream in a jungle **Greedy Search**: three people are walking along a rocky mountain(BLEU: 45.67)

**Beam Search(b=3)**: four people are walking on a mountain(BLEU: 49.19)

**Beam Search(b=7)**: three people are walking across a river(BLEU: 23.19)

**Beam Search(b=10)**: three people are walking along a rocky mountain(BLEU :45.7)

**Observation**: Beam Search(b=10) is more meaningful here.



Real Caption: white and tan dog leaps through the air.

**Greedy Search:**dog in harness is running through the grass(BLEU:23) **Beam Search(b=3)**: dog is leaping through the grass.(BLEU:68.46)

**Beam Search(b=7)**: dog is leaping through field (BLEU:73.19)

Beam Search(b=10): a dog is running through a grassy field(BLEU:50

**Observation**: Beam Search(b=7) is more meaningful here.



Real Caption: lone man climbing high on snowy mountain.

Greedy Search: man is standing on top of glacier.(BLEU:53.45)

Beam Search(b=3): man is standing on top of glacier.(BLEU:60.30)

Beam Search(b=7): man is standing in the snow(BLEU:66.66)

Beam Search(b=10): a man is standing on a glacier(BLEU:53.45)

Observation: Beam Search(b=7) is more meaningful here.



**Real Caption**: brown dog with his tongue out as he runs through field **Greedy Search**: brown dog is running through the camera.(BLEU: 15.09) **Beam Search(b=3)**: brown dog is running through the grass.(BLEU: 62.8) **Beam Search(b=7)**:

brown dog is running through the grass with his tongue out of grass with an orange toy in the dead leaves .(BLEU: 40.2)

**Beam Search(b=10)**:a brown dog is running through a grassy field(BLEU: 62.8)

Observation: Beam Search(b=10) is more meaningful here.