Quiz 6

Name: ___Solution_____

One way to determine the quality of evidence is to consider its level of public verifiability. Lower quality evidence is difficult for the public, a person such as yourself, to check on its accuracy while high quality evidence is more easily verified by the public.

1. *Claim*: A person's career choice is due to experiences in life not their genetics.
   Evidence: I know someone who has a PhD in physics and his wife has a PhD in social science. They decided that they did not want to have a family but accidentally become pregnant. The child was adopted by a loving, stable family with a stay-at-home mom and a father who had a bachelor degree. The daughter is 20 years old and is not planning to go to college.
   a. Please rate this evidence as low, medium or high quality evidence.
      Medium
   b. Explain why you chose the rating you did in part a above.
      Case Study - Because it can be verified by finding that family, then it's more appropriate to rank as Medium
   c. Explain the strengths and weaknesses of this piece of evidence.
      Strength – can be checked out
      Weakness – this is only one person so not adequate to base a generalization off of

2. *Claim:* A bald eagle lives in Glenmere Park in Greeley, CO.
   Evidence: A resident reported seeing a bald eagle on the lake early in the morning last Wednesday.
   a. Please rate this evidence as low, medium or high quality evidence.
      Low
   b. Explain why you chose the rating you did in part a above.
      Personal observation cannot be verified
   c. Explain the strengths and weaknesses of this piece of evidence.
      Strength – Reported by a credible witness who was likely sober during daylight
      Weakness – cannot be verified.

3. *Claim*: A Bigfoot lives in Park County Colorado.
   Evidence: An early evening sighting by two women hiking in Bailey, CO. They saw something running through the Pike National Forest that matched the description of a bigfoot. At approximately 7:45 p.m., they heard a very loud noise that sounded like a branch breaking. Also a little bit of rustling, as in leaves, with the branch breaking, but very, very brief.
   a. Please rate this evidence as low, medium or high quality evidence.
      Low
   b. Explain why you chose the rating you did in part a above.
      Personal observation
   c. Explain the strengths and weaknesses of this piece of evidence.
      Strength – credible witnesses daylight. Two people

Weakness – Cannot be verified. In the forest at a fair distance limits visibility. Short amount of time to observe.

4. *Claim:* Students enjoy Adams' new physics labs

   Evidence: An article in a peer-reviewed journal reports that Adams' end of term survey found that 79% of students report enjoying labs. 84 students completed the survey.

   a. Please rate this evidence as low, medium or high quality evidence.

      High

   b. Explain why you chose the rating you did in part a above.

      Peer-reviewed study and Statistics can be verified

   c. Explain the strengths and weaknesses of this piece of evidence.

      Strength – Large number of students , peer-reviewed journal so some level of verification by experts

      Weakness – Not all students report enjoying lab. Only one class at one university was mentioned.

5. *Claim:* BPM oil additive will extend the life of your engine.

   Evidence: Mechanics report that BPM fuel additive will help your engine run smoother and more efficiently.

   a. Please rate this evidence as low, medium or high quality evidence.

      Medium or Low

   b. Explain why you chose the rating you did in part a above.

      Appeal to Authority – However, the evidence offered does not directly support the claim so could be lowered to the Low level.

   c. Explain the strengths and weaknesses of this piece of evidence.

      Strength – A mechanic is an authority on engines so provides a more reliable piece of information than a non-mechanic's opinion would.

      Weakness – The evidence from the mechanic doesn't directly support the claim. It requires an inference of running smoother means extended life. This does not involve any sort of test of engine life with the additive compared to without.