**Summarizing Journal Articles**

**Pre-Class Activities**

Summarizing information is one of the most important skills to learn. Turning complex material into a form that makes it more readable for others requires similar skills to paraphrasing and using quotations effectively. However, there are some subtle but very important differences. These pre-class activities have been designed to give you practice in distinguishing these, as well as ensuring you write a summary of a recent peer-reviewed journal article that interests you. You must bring your summary and the journal article to the in-class activities for this writing skills unit.

You may have already learned how to paraphrase material from its source by making it more concise and putting it into your own words. When writing a summary, you should do exactly the same thing, except you should make it considerably shorter than its original form and focus only on the **very important** information. When you work with scientific journal articles, it can be initially difficult to distinguish which pieces of information are very important from those that are less important, because every article contains so much information. These activities should help you develop strategies for making this distinction.

**The Key Elements**

Every journal article is different, but as a general guide, you should read each one and make notes with the following questions in mind:

1. What problem/question does this research consider?
2. Why is this problem/question important/interesting?
3. What did the researchers predict?
4. What methods were used (**in general**)?
5. What were the main findings?
6. What evidence is provided to support the main findings?

**Questions 1, 2, 3, 4, 5 and 6 (2 marks each, 12 marks total)**

For each of the following six questions, you will need to refer to the fictional **abstract** that appears below (it is deliberately not concise). When you summarize an article, it is important that you read the whole article (and not just the abstract), but for this exercise, a smaller body of text will be sufficient. As you read it, try to think about what the really important information is.

***We conducted a 12-week research project to assess whether mice that had been raised in different conditions were affected by noise levels when they were moved to different regions. Mice are excellent model mammal organisms for such research because they are hardy and readily accessible, as opposed to the endangered mammals that such research should benefit in the future. It has been argued that raising threatened mammals (such as the white-footed ferret) in quiet areas in captivity and then releasing them into the wild is a fruitless pursuit if the areas they are given their freedom in are particularly noisy, because the animals typically move to other areas to avoid unfamiliar noise (and often die in that endeavour). We measured mouse heart rate in different noise situations after they had been raised in either quiet (n=451) or noisy environments (n=378). We also captured them 12 weeks after their release and tracked the distance they moved from their initial point of release in each environment (km). To our surprise, we found that there was no difference in heart rate response as a result of the conditions in which mice had been raised (t-test, T= 4.37, p=0.31). Again, surprisingly, there was also no difference in response in terms of distance travelled from the point of release as a result of the conditions in which mice had been raised (t-test, T=3.71, p=0.14). As expected, we did however find a significant difference between the distance travelled from the point of release when all data were grouped (t-test, T=6.71, p=0.02) so that the noise level of the environment in which they were released was compared. Mice moved further from the point of release when they were released in noisy areas compared to quiet ones. There was no correlation between mouse sex or size and distance travelled from the point of release (r=0.15, p =0.43, and r=-.09, p=0.56 respectively). We advise all conservation efforts to be considered on a case-by-case basis, but suggest that noise itself is likely to cause released individuals to move large distances to seek quieter habitats, regardless of the conditions in which they were raised. For this reason, we advise people to only release animals in quiet habitats.***

Now, for the following six questions, copy and paste the complete sentence in the abstract that **contains** the answer (1 mark). Then, try to summarize this information for each question by writing it in your own words. Write it more concisely and useless specific detail (1 mark). *Hint: Think hard about whether you need specific information to provide an accurate summary answer to each question and* ***do not*** *include it if it is unnecessary.*

**\* As you work through questions 1 - 6, keep a copy of your answers in another file. You will need to paste the combined answers into Connect for Question 7. \***

**Q1:** **What problem/question does this research consider?**

**Q2: Why is this problem/question important/interesting?**

**Q3: What did the researchers predict?**

**Q4: What methods were used (in general)?**

**Q5: What were the main findings?**

**Q6: What evidence is provided to support the main findings?**

**Question 7 (4 marks)**

Imagine that you have summarized 10 papers in the same way as you have just done for the fictional abstract above, and that you now want to summarize everything into one piece of writing. This will mean summarizing everything again, which means removing any information from each one that is not vital or very interesting.

Copy and paste all of your answers to questions 1 – 6 together to form one summary paragraph. When you read it, this might seem as though you have paraphrased rather than summarized the material. To rectify this, re-write your summary more succinctly to remove any redundant or uninteresting information (2 marks), and to make sure it transitions more smoothly from sentence to sentence (2 marks). *Hint: You might wish to re-order the sentences to make the summary more interesting, and/or remove any lingering specifics that are not needed to get the important messages across, as well as adding a sentence at the end to state the wider implications of the study and its findings.*

**Question 8 (4 marks)**

Try to summarize a recent peer-reviewed journal article that interests you (this can be from any scientific discipline). In your summary, try to answer the six questions that appear in the ‘key elements’ section (above). Most importantly, try to write no more than 250 words, but do not worry too much about style just now. Although the content is very important, you will not be graded on this aspect yet.

\* When you have completed your summary, copy and paste it and include a word count. **Make sure you also save a copy for yourself. You will need to (1) print this, along with (2) a copy of the peer-reviewed journal article you used, and bring them both with you to participate in the in-class activities.** In these activities, you will work with a partner to improve your summaries in terms of content and style. \*