**Using Quotations and Paraphrasing**

**Pre-Class Activities**

**Using Quotations in (Journalistic) Science Writing**

Quotations appear in almost every good news story because they add an extra level of interest for the readers. However, as you have learned throughout this course, writing concisely and telling a story as simply as possible is of vital importance. For this reason, a ‘good story’ only ever contains ‘good quotes’; simply filling space with quotes will put your readers off, rather than encouraging them to absorb the tale you are telling.

As ever, when writing you should try to make your story accessible to the audience to which it is targeted. For example, suppose you had spent three years in a genetics lab and discovered how a gene functioned to protect fruit from pests. When it came to communicating your research, you would write two very different articles to a specialist science magazine and a newspaper that would be read by more diverse audiences.

However, in both cases, you would likely add quotations to help make the article more engaging. Although you might include more jargon in the specialist version, there is a fairly standard set of guidelines for choosing quotes that you would be able to apply to both articles.

In general, the following elements will all be present in a good quote:

1. The information contained in it will **add to**, **expand, and/or personalize** the story.
2. It will be easy to understand, even if it contains **metaphors.**
3. It will be attributed to a **relevant** source, who has something meaningful to say.
4. Although not always the case, impact tends to be higher if the word count is **small**.

In contrast, the following elements tend to be present in a bad quote:

1. The information contained in it is **boring, redundant, repeats information, contains jargon** or is **incoherent** and hard to follow.
2. It is taken from a source who has **not** been introduced earlier in the article, or from a source who has nothing of importance to add to the story.
3. It is **not concise** and/or hard to interpret.

**Questions 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 (1 mark each, 10 marks total)**

For each of the following 10 questions, you are given one quote. Scenario A applies to questions 1–3, Scenario B applies to questions 4–7, and Scenario C applies to questions 8–10. Your task is to decide whether each quote falls into category **i, ii, or iii** (listed below). *Hint*: *More than one quote might fall into the same category in each scenario.*

**i:** Good quote that would add to the quality of the story.

**ii:** Quote with relevance, but not suitable for this audience.

**iii:** Bad quote that would reduce the quality of the story.

**Scenario A (questions 1, 2 and 3):** You are writing a **facts-based article for a popular nature magazine** about the endangered Vancouver Island Marmot.

**Q1:** “The main problem is that these marmots are more selective of their habitat than other marmot species tend to be, and this… I guess what I mean is… well, they’re not like red squirrels, which are getting rarer because the greys are more dominant… it’s just that there aren’t many suitable meadows for them to make their burrows in… but they are just as endangered as the red squirrel for example,” said conservation officer Andy Stephen.

**Q2:** “They are very photogenic and I always feel happy when I see them,” added Stephen.

**Q3:** “I remember seeing them fairly regularly only 20 years ago but now a sighting is very rare. The official data backs that up too,” said Stephen.

**Scenario B (questions 4, 5, 6 and 7):** You are writing an article for a **popular science blog (aimed at undergraduate students at UBC)** about gene therapy research trials.

**Q4:** “You can think of it as hand-delivering a good gene to replace a bad gene,” said Lily Chen, a clinical researcher.

**Q5:** “You can also try a homing endonuclease generated from an appropriate cell effector,” said Florence Murphy, another clinical researcher.

**Q6** “We also hope to use modified somatic receptors in germ line therapy,” added Murphy, “but right now there are too many ethical issues with that.”

**Q7:** “It’s a difficult procedure, but when it works it really changes lives,” said Dr. Phelps, who has spent the last 20 years of his career developing the procedure.

**Scenario C (questions 8, 9 and 10):** You are writing an article for a **daily newspaper** about the ‘non-ending’ of the world on December 21, 2012 (*note: many people thought the world was going to end on this date based on interpretations of the Mayan calendar*).

**Q8**: “I’ve always been interested in Doomsday predictions and have done loads of research on them over the years; I usually find the strangest ones to be the most intriguing,” said Mitchell Jones, who admitted to worrying that we would not see December 22 last year.

**Q9:** “Is it any wonder that we struggled to comprehend the nuances of a multi-faceted calendar system that is believed to have been first inscribed by the unknowable spiritual deity Itzamna?” said Prof. Reilly, who has studied Mayan mythology for 40 years. **Q10:** “The world might not have ended but the Mayans never actually said it would; that prediction was only based on our interpretation of their calendar,” said Prof. Roberts, a colleague of Prof. Reilly.

**Question 11 (5 marks)**

This question is designed to give you further practice in selecting certain quotes for use in your writing. Read the following introduction to a science-based news story, and then consider the five quotes and descriptions that appear in the table below it. Your task is to correctly match each quote to the description of it (each description should be used only once).

***Medicines could soon become more effective thanks to the development of a new technique that makes drugs more resistant to being broken down inside the body.***

***Enzymes found in the liver typically break down drugs within a few hours, rendering them useless to treat whatever illness is affecting the patient.***

***However, researchers at Navan University have found that using a man-made enzyme to replace specific atoms with fluorine ones makes drugs much more stable, and, therefore, the drugs have longer to treat patients once they enter the body.***

***Professor Stewart, lead researcher on the project, said: “…”***

**Table 1: Quotes (numbers 1, 2, 3, 4 and 5) that must be matched to descriptions (A, B, C, D and E).**

|  |  |
| --- | --- |
| **Quote (all taken from the lead researcher, Prof. Stewart)** | **Description of quote** |
| 1. “We worked with a very reliable set of equipment.” | A. Good quote. |
| 2. “The man-made enzyme is a lot like cytochrome-450.” | B. Redundant quote. |
| 3. “For a long time we… It was difficult. But then success.” | C. Jargon-heavy quote. |
| 4. “This is exciting because it should have multiple benefits.” | D. Boring quote. |
| 5. “Fluorine atoms just make the molecule more resistant.” | E. Non-coherent quote. |

**The Importance of Paraphrasing**

Sometimes you will have access to a quote from a relevant source but there will be a problem with it that prevents you using it word for word. For example, perhaps the quote contains too much jargon for your audience, or maybe it makes a good point but is too long-winded. In either of these instances, it would be a shame not to use the information in the quote if it could improve the quality of your article, but using the quote itself would have the opposite effect. So what do you do?

The answer is that you should **paraphrase** the information. You can think of this loosely as citing it in the way you would in a lab report. In other words, you are going to attribute it to the source, but only include the information that is relevant to your audience. For example, imagine Prof. Stewart provided the following quote:

**“We found that with the fluorine atoms added in place of certain hydrogen atoms, the drug molecules remained intact for an average of 11 hours as opposed to six when they were unaltered and kept in the same environments. This is a major difference and could allow the drugs to be much more effective in treating diseases.”**

Rather than using the (whole) quote, which contains admittedly interesting information in a long-winded, rather boring way, you could paraphrase it like this:

**Professor Stewart explained that swapping the hydrogen atoms for fluoride atoms kept drug molecules intact for almost twice as long.**

Because the second part of the original quote is concise and interesting, you could also think about including it after your initial paraphrased sentence, like this:

**Professor Stewart explained that swapping the hydrogen atoms for fluoride atoms kept drug molecules intact for almost twice as long. “This is a major difference and could allow the drugs to be much more effective in treating diseases,” she said.**

**Re-ordering Transcripts (and Quotes)**

When you interview somebody as a source for your articles, you will probably produce a transcript of information ordered in a way that does not tell the most interesting story possible; in spoken conversations about complicated subjects people rarely explain themselves smoothly or without backtracking.

As a result, you will often have to re-order things when incorporating quotes into your article. This might mean paraphrasing parts of a quote and including other parts of it as a direct quote, or it might mean swapping the order of quotes so that the story follows more logical sense. Although this is a common, and necessary action, you must be careful not to take quotes out of context when doing this. Make sure that when you read the original transcript and compare it to the re-ordered quotes in your article, you are satisfied that you have not misrepresented your source in any way!

**Questions 12, 13, 14, 15 and 16 (2 marks each, 10 marks total)**

You are given one quote for each of the following five questions. You should copy and paste the whole quote and bold the part/parts that should be paraphrased (1 mark) before re-writing it (if necessary) to include paraphrased information and/or a part of the original quote (1 mark). In some cases you will not need to make any changes; in others you will need to identify the part (or whole quote) that needs paraphrasing by bolding it before re-writing that specific part.

**Q12:** “We worked on average 12 hours per day for six months before we made any sort of breakthrough but we were always hopeful that we were on the right track because we had occasional highlights that made us believe there was mileage in the project even when things were largely unsuccessful,” said Prof. Stewart.

**Q13:** “It is important to incorporate the fluoride atoms at specific sites. It depends on where they are placed as to whether or not they are effective at preventing the liver enzymes from breaking the drugs down,” said Prof. Stewart.

**Q14:** “This could be huge. If this works for all drugs, diseases should be far easier to treat,” said Prof. Stewart.

**Q15:** “Not only is the potential application of this discovery extremely exciting, but this research is exciting for chemists because nobody had ever managed to successfully transform molecular bonds in the way that we have here and that opens up doors to other possibilities further down the line,” said Prof. Stewart.

**Q16:** “Using fluorine gas can be very difficult because it is not very predictable or stable and it can even be explosive in the wrong environment when you are working with it. Thankfully, we can use extremely stable fluorine salts as a base, so there will be no explosions in my lab,” said Prof. Stewart.