Effective versus Ineffective Writing Prompts

Providing students with effective writing prompts can sometimes be tricky, because it can be difficult to outline exactly what you would like students to demonstrate in their writing assignments. When it comes to "effective" and "ineffective" topics, it's more a question of how specific a topic is and how clearly the outcomes of the project are presented to students. For example, a project designed to get students to use sources in a way that is appropriate to science writing can be about almost any topic. In any case, you must clearly communicate the purpose and goals of the assignment to students.

Determining the desired outcome of the project

When designing your writing assignments make sure you consider the desired learning outcome(s). To narrow the goal of a given assignment, consider the following questions:

1. **What do you want students to learn or be able to do as a result of the project?**
   - What is the **goal** of the assignment?
   - Is this a more basic (understanding) assignment, or one that poses a conceptual question, or asks students to solve a problem?
   - Is the focus on a specific topic or a broader one?
   - Do you want students to write a persuasive, argumentative, journalistic, etc. paper?
   - Do you want students to learn how to cite and use sources correctly?
2. **What knowledge do you want students to demonstrate?**
   - Do you want them to gain **new** knowledge or use **existing** knowledge? That is, do you want students to use something they have learned in class specifically, or do you want them to discover something through research?
   - Do you want them to focus on grammatical techniques, style (active and passive voice), or on the scientific content more than specific writing skills/strategies?
   - Which writing strategies from the lessons do you want students to use in the assignment (all of the strategies you have gone over, or focus on one or a few things)?

3. **How do you want students to think about the topic or desired outcome?**
    - What would you like students to be thinking about as they do their assignment? Think about…, Imagine that…, You are the researcher, your objective is to find…, etc.
    - How can you lead them to the final destination?
    - Do you want them to research ideas through articles or do you want them to be more creative?
    - Do you want them to focus on topics that appeal to them personally, or are you guiding the direction they will explore?

Communicating to students

As an instructor, it is critical that you present the information and outcomes in the simplest way possible. Your students will not only appreciate the simplicity but will also engage in the assignment at a higher level. When presenting the instructions for the project, be sure to avoid lengthy and wordy descriptions.

Although you want to avoid long descriptions that are difficult to read, it is necessary to include relevant details for project completion. It is very effective to include a goal for the project and to make a list of what the assignment is expected to address and include.

The expectations of the assignment must be clearly communicated for students to monitor their own progress. Often, misleading or confusing instructions can throw students in the wrong direction. If you simply outline what is expected, students have a guideline to follow.

Incorporating grading criteria goes hand in hand with your assignment expectations. This is another way that students can see if their paper is following what the assignment is designed to achieve. Additionally, it allows students to ask questions if they are unsure of the grading process.

Some examples

The following examples show examples of "ineffective" instructions before revised versions that provide "effective" instructions. These provide examples of how you can improve existing writing prompts.

"Ineffective" writing prompts:

- Should conservation organizations run campaigns for popular animals, such as polar bears, even though current climate predictions suggest their habitat will continue to shrink in the next 50 years?
- Use a literature search tool to help write a review of recent progress in the field of immunology.

Now we will take a look at some improvements made to the above instructions. Compare these ineffective writing prompts to those below.

"Effective" writing prompts:

- Should conservation organizations run campaigns for popular animals, such as polar bears, even though current climate predictions suggest their habitat will continue to shrink in the next 50 years?
  ***Be sure to assess both sides of this argument, and use primary sources to provide some evidence to the reasons you use. Make sure you conclude by taking a stance, and providing a logical explanation for that stance. You will be graded on content (60%), logical development (20%) and organization and grammar (20%).*

- Use a literature search tool to help write a review of recent progress in the field of immunology.
  ***Try to incorporate at least five recent primary sources that you have found using Google Scholar or Web of Science, and at the end, include the search terms and any advanced settings that you used to find these sources. Explain how you decided to focus on one specific area of immunology research. Try to write this review with a non-specific audience in mind (minimize your use of jargon and highlight why such research is important for society).*

The writing prompts above clearly address a desired goal and specifically outline the knowledge that students will need to demonstrate. It is easy to see where students are led with these assignments.

Anticipating students' questions and concerns

Another important part of giving writing prompts is being prepared for what students might ask about the assignment. Knowing this should help you to prepare students for what they might need to know, while using past experience with the same or similar projects can help determine the additional information that students will need.

Make sure you present the assignment information in class so that students can ask for clarification right away if necessary. This will also reduce your need to respond to similar questions from different students outside of class time; if one person is confused about something it is likely that at least one other person will share this confusion, so answering questions in a class setting should clarify things for many students.

To minimize student confusion when presenting the assignment, it is best to effectively break the assignment down into steps/checkpoints. This is a way students can visually see what they need to include in their assignment. Having checkpoints allows students to follow a time line or path when completing the project.

An example

In the following example, note how each question breaks a bigger task (summarizing a journal article) into smaller elements, as well as outlining to the students how they will be graded for each element.

The final question then asks students to go about the bigger task (summarizing a journal article) with new material only after they have gained the experience of doing it step by step.

Summarizing Journal Articles: Student Pre-Class Activity - Version 1

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 methods were used (**in general**)?
4. What were the main findings?
5. What evidence is provided to support the main findings?

Questions 1, 2, 3, 4, and 5 (2 marks each, 10 marks total)

For each of the following five questions, you will need to refer to the fictional **abstract** that appears below (it is deliberately not concise and features complex words and jargon that would be typical of a journal abstract). 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 261-day research project to assess whether there was a link between exam performance in science courses and the happiness of students in these courses. We used the responses of 1,046 undergraduate students, who volunteered and were from different economic and social backgrounds, to answer this research question. Students were asked to answer a 15-question survey that had been previously validated by other researchers, and was therefore reliable, immediately after sitting their final exam in a science communication course. Survey questions were comprised of statements about happiness and wellbeing, such as: "I wake up feeling positive every morning," and "I laugh at least 10 times a day,". Students then had the option of answering these questions on a five-point Likert scale (with 1 representing 'strongly disagree' and 5 representing 'strongly agree'). We split students into three groups based on their exam scores; one group contained students that scored As, one contained students that scored Bs and Cs, and one contained students that scored Ds or lower. We then took averages of questionnaire responses from these students and ran Bonferroni-corrected T-tests to ascertain whether there were significant differences between groups. We found that there was no difference in happiness between students that scored As and those that scored Bs and Cs (T=1.17, p=0.39), but students that scored Ds or lower were less happy than students in the other two groups (T=3.91, p=0.003, and T=4.71, p=0.0007). Social science researchers had long wondered whether students' perceived happiness is affected by their exam performance but no studies had previously sought to address this conundrum experimentally. We propose that happiness is directly affected by exam performance in undergraduate science students, but that this is

only true when students achieve grades of D or less. Students that achieve Cs or above, traditionally seen as passing grades, do not appear to be affected by the extent to which they differ from their peers, so long as they also achieve Cs or above. As a next step, we would like to devise experiments to tease apart the cause and effect relationship here; we still do not know whether students perform less well on exams because they are unhappy in other areas of their lives, or if students are unhappy because they perform less well than they hope on these exams.

Now, for the following five 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 use **less** 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. We have not worked with interpreting statistics before, but in **most** circumstances (such as this one) you can assume it is safe not to include specific numbers, but you should say whether or not the statistics **provided evidence** for any conclusions made by the authors.*

* As you work through questions 1 - 5, keep a copy of your answers in another file. You will need to paste the combined answers into Connect for Question 6. *

Q1: What problem/question does this research consider?
Q2: Why is this problem/question important/interesting?
Q3: What methods were used (in general)?
Q4: What were the main findings?
Q5: What evidence is provided to support the main findings?

Question 6 (5 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 (perhaps you were writing a review of all the studies that relate to happiness and academic performance, for example). 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 your summarized answers to questions 1 – 5 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 (1 mark). Try to remove any redundant or uninteresting information (2 marks), and make sure it all transitions smoothly from sentence to sentence (2 marks). *Hint: You might wish to re-order the sentences to make the summary more interesting and/or succinct. We have not worked with interpreting statistics before, but in* ***most*** *circumstances (such as this one) you can assume it is safe not to include specific numbers, but you should say whether or not the statistics* ***provided evidence*** *for any conclusions made by the authors.*

Question 7 (5 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 five 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. *