Science 9: Choices in reproductive technologies

Introduction

*A science-literate citizen is able to read, watch and intelligently respond to scientific claims in the media. But how do you know if the person behind the story is scientifically accurate, or trying to convince you of something, or sell you a product? This assignment will show you how.*

Of course you can always check the *science* behind the media stories.  Use reliable resources such as: your textbook and other [background materials](http://en.wikipedia.org/wiki/Assisted_reproductive_technology) on: [stem cells](http://www.merckmanuals.com/home/immune_disorders/transplantation/stem_cell_transplantation.html?qt=in%20vitro%20fertilization&alt=sh), [reproductive technologies](http://www.merckmanuals.com/home/womens_health_issues/infertility/assisted_reproductive_techniques.html), [in vitro fertilization](http://www.nlm.nih.gov/medlineplus/ency/article/007279.htm), [cryogenics](http://cryogenics.nist.gov/AboutCryogenics/about%20cryogenics.htm), & [cloning](http://www.merckmanuals.com/home/fundamentals/genetics/gene_technology.html?qt=cloning&alt=sh).

The harder part is understanding the [bioethical aspects](http://www.bioedge.org/). There is a wide diversity of opinion in the world concerning the emerging technologies that affect your ability to have children. Some day you may need to make critical decisions based not only the science, but also your beliefs. You may have an opportunity to vote on issues.

Do you know what you believe at this point? You are not alone if you are not sure. The Canadian government site says,

*Twenty years ago, the only reproductive technologies available to infertile couples were artificial insemination and in vitro fertilization.  Since that time, there has been an explosion of reproductive and genetic technologies, and a multitude of options are now available both to those with fertility problems and to those who wish not to pass on inheritable conditions to their offspring.  The scientific, medical, ethical and legal communities have struggled to keep pace with the challenges posed by these advances.*[*source*](http://www.parl.gc.ca/Content/LOP/researchpublications/prb0035-e.htm)

Assignment

Note: This is an individual assignment. Each student needs to hand in a completed analysis of two websites AND a completed paragraph.

ONE: Research a trusted source

You will search in your textbook and other trusted reference sources (such as encyclopaedias) for information on **one** of the following topics. Take notes from at least two sources, and write down the sources you use!

1. In-vitro fertilization (IVF), Intra-cytoplasmic sperm injection (ICSI), *Designer Babies*
2. Surrogate mothers
3. Issues regarding donating eggs or sperm
4. stem cell research
5. use of embryos for research
6. human cloning
7. Other developments of interest (check with your teacher before proceeding)

TWO: Research open access sites

Search for the same topic in a web browser. I recommend using Google News to find at least one recent news article in addition to looking for general websites. You should find at least three different articles. Record these in your bibliography. You will analyze two of the websites/articles using the template provided. You may discuss your website/topic with a classmate before/during your analysis.

 THREE:  Individual paragraph responses

After researching and reflecting upon the views of the articles, write a clear concise 300-word paragraph stating your views on a reproductive technology issue.

* What are your thoughts the impacts of emerging reproductive technologies?
* How do they affect individuals, society, and the environment?
* You could choose to write this section as a journal entry such as:  
  + I was surprised to read that . . .
  + I didn’t know that . . .
  + I had never considered . . .
  + I wonder why . . .
  + If I were in that situation, I would . . .

Evaluation

9-10 MARKS - The paragraph develops one main idea and clearly states a thoughtful view on this emerging technology.  There is a strong topic sentence, supporting sentences, and a concluding sentence.  The sentences flow and are grammatical.  Quotes and paraphrases are cited and used to support your ideas.

7-8 MARKS - The paragraph develops one main idea and states your view on this emerging technology.  There is an attempt to write a topic sentence, supporting sentences, and a concluding sentence.  There are a few grammatical errors.  Quotes and paraphrases are used to support your ideas.

5-6 MARKS - The paragraph attempts to develop one main idea and state your view on this emerging technology.    There are many grammatical errors and the sentences are somewhat confusing - although there has been an attempt to include a topic sentence, supporting sentences and a concluding sentence.   Your views are supported with weak examples, quotes, etc.

0-4 MARKS - While a paragraph has been written, it does not indicate that any reading has occurred.  Your views are opinions without any support.

- See more at: http://www.bestlibrary.org/open/2011/12/science-9-controversy-in-reproductive-technologies.html#sthash.bFSXEcGY.dpuf

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| CITATION, (full URL) |  |
| **SCIENCE FACTS** | **Can the science in the article be trusted? Check facts.** |
| Does the writer have a science background? |  |
| Have you discovered any scientific information they use, that is inaccurate? Give examples. |  |
| Is the information up-to-date? |  |
| **BIOETHICAL OPINION** | **Is the article trying to sway your opinion? Are they biased or neutral?** |
| Is the writer of the article selling products or services? ( e.g. drugs or medical procedures) |  |
|  |  |
| Is your article for or against or neutral about an technology? |  |
| What evidence does the writer give to back up their opinion? Quote from the article. |  |

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