

TMP ELEMENTS AND OUTLINES

TASK: Develop and present a well-reasoned argument for your proposed solution

1. Evaluate potential solutions raised by different perspectives you considered; consider the implications and consequences of each solution
2. Choose one solution for which you will argue
3. Develop claims and evidence that support your argument for your proposed solution (your evaluation of the solution should lead you to these reasons); you will likely need to do some additional research to find appropriate evidence
4. Be sure to demonstrate that you have considered the possible objections, limitations and implications of your proposed solution
5. Identify relevant alternative/competing solutions and explain the objections, limitations and/or negative implications of these solutions (i.e. why you are not choosing these solutions)

BASIC OUTLINE:

- I. Claim (the solution you are proposing)
- II. Provide Context
- III. Reasons & evidence
- IV. Limitations of solution and rebuttal
- V. Evaluation of alternative solutions
- VI. Conclusion

SPECIFIC OUTLINE EXAMPLES

Gene Therapy (high scoring)

- I. Claim: Integration of gene therapy into existing markets will revolutionize the treatment of incurable diseases in an ethical manner
- II. Definition of gene therapy
- III. Reasons gene therapy is opposed
 - a. Safety Concerns
 - b. Expensive
 - c. Ethicality
- IV. Scientific Lens: Clinical trials and development of smart microscope can ensure the development of a safe, usable model of gene therapy
- V. Economic Lens: One-time treatment vs. lifetime of treatments with traditional medicine; commercial development can be incentivized through a pay-for-performance model
- VI. Ethical Lens:
 - a. Who determines recipients of gene therapy
 - b. Moral and religious objections
- VII. Futuristic Lens: Gene therapy has many benefits for the future of medicine
 - a. Can treat a wide variety of diseases (esp. rare ones)
 - b. Can increase the lifespan of patients
 - c. Can improve quality of life for patients
- VIII. Alternatives
 - a. Organ transplant
 - b. Protein therapy
- IX. Conclusion

Animals and Depression (mid/high scoring)

- I. The scope of the problem: statistics about depression (context)
- II. Question: To what extent are animals effective in the treatment of depression?
- III. Claim 1: Easy to obtain
 - a. Easy access (cultural/social)
 - b. Affordable (economic)
 - c. Rates of uninsured Americans are going down, giving people more affordable access to traditional medication, but animal therapy is still effective and affordable (futuristic)
- IV. Claim 2: Good approach when conventional methods fail
 - a. Traditional medications can be effective or fail (futuristic)
 - b. Less time in treatment; more affordable (economic)
 - c. Study on nursing home patients: therapy dogs showed more success; social interaction (scientific)
- V. Claim 3: healthy for all ages and levels of depression
 - a. Study involving pills, placebos and animals showed animals more effective – human interaction (social/cultural)
 - b. No side effects BUT concerns about germs and allergens (scientific)
 - c. Some patients can get Medicaid or medicare to lower the costs of traditional medication, but the costs of animals are still lower (economic)
- VI. Conclusion: Animal therapy is an effective monotherapy for treating depression in cases where other methods have failed AND it is an effective augmentation to traditional therapy in most cases of depression

Animal Testing

- I. RQ: Is animal testing a favorable method for drug evaluation in the United States?
- II. Relevance of the issue (context)
 - a. Millions of animals affected
 - b. 100,000 people per year die from adverse drug reactions
- III. Conclusion: No, it is not a favorable method
 - a. (preview of the three claims)
- IV. Doctors against animal testing
 - a. Inaccurate method
 - b. Negative effects of inaccuracies
- V. Animal rights activities against animal testing
 - a. Unlawful – cause pain/torture
 - b. Used more than necessary because researchers make errors
 - c. Guidelines not being adequately followed
 - d. Gaps in laws
- VI. Researchers in favor of animal testing
 - a. Improvements to existing drugs can be made and tested for safety
 - b. These new drugs can limit negative side effects of previous drugs
- VII. Solution: in-vitro testing
 - a. Same benefits researchers described
 - b. Less expensive
 - c. More accurate
 - d. It is uncommon and there is not a lot of information about it, but it is a growing field
- VIII. Conclusion: In-vitro testing needs to be incorporated into laws and funding needs to be dedicated to it
- IX. Implications of solution
 - a. Labs need to be altered
 - b. Researchers need training
 - c. Regulations need to be adjusted
- X. Limits to the research