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Unit - Preparation for University Studies (ENAB101)

Assignment Title – A Written Report

Due Date – 31/03/24

Unit Coordinator - Robert Whannell

Word Count – 746

↑ Title page.

Introduction
Thesis statement (link back to question)
Topic Sentence
→ Throughout modern history, gaining public support for a specific venture has been important for the level of funding allocated to it, especially when tax-payer money is involved. Space exploration is no exception and has a history of changing public opinion. Although there are always important expenditures for a government to consider, such as welfare, we should endeavour to allocate as much funding as possible to space exploration given the wealth of benefits to our society it can provide. These benefits are not only in terms of technological innovation, but also the potential discoveries about our universe.

Content of Assignment

Topic Sentence of 1st paragraph
→ Since the invention of the first telescope in 1608 (King, 1955), humans have been mapping the stars. It wasn't until 1944 when the first German V2 rocket was launched, becoming the first artificial object to reach outer space (Milazzo et al., 2017), that the idea of truly exploring our solar system became a reality. True space exploration was achieved in 1959 when the U.S.S.R. launched the Luna 1, an unmanned probe sent into orbit around the moon (Milazzo et al., 2017). Since then, there have been 64 completely successful missions to the moon (NASA, n.d.-a), and 22 to Mars (NASA, n.d.-b).

Connecting sentence to the 1st paragraph body (Most important point)

Connecting sentence to 2nd body paragraph

Content and Support evidence

Topic Sentence of 3rd Body Paragraph
→ Space exploration has also been the source of many important discoveries and advancements, whether a direct result of a discovery made in space, or simply as a byproduct of the research necessary to achieve mission success. Modern eye surgery, for example, uses laser in situ keratomileusis (LASIK) which is based on technology originally developed for laser detection and ranging (LADAR) for the U.S. Department of Defense's Ballistic Missile Defense Office (BMDO) (NASA, 2003a). This system was designed to allow spacecraft to autonomously dock with satellites in orbit. It is now used in LASIK to track the saccadic movements of the eye and allow the laser to reshape the cornea (NASA, 2003a). Other less direct advancements have also been made from space exploration research. Cochlear implants were first developed by Adam Kissiah to help overcome his deafness using experience and expertise he gained from working as an electronics instrumentation engineer at The National Aeronautics and Space Administration (NASA) (NASA, 2003b). Satellite images are even being used to assist in smarter irrigation of crops (NASA, 2020). NASA claims that space exploration has created over 14,000 jobs, saved 444,000 lives, and generated \$5 billion in revenue for the United States (Rademakers et al., 2012). Throughout the history of space travel, research and development into spacecraft and survival in space has resulted in numerous technologies benefiting humanity.

Content of 3rd paragraph of body

Body

Topic Sentence of 4th body paragraph
→ Looking into the future, space exploration has potential to provide not only new technological advances, but also help us understand the origins of humanity and the universe. As Crawford (2010) put it, "it is only through exploration of the universe around us that we will be able to determine the existence, prevalence, and nature of life beyond our own planet." (para. 1). Regarding the origins of humanity, Crawford (2010) suggests that even celestial bodies as close to earth as the moon can give us information about early Earth conditions. Deeper into space, finding evidence of life on Mars would have enormous implications for the history of our planet (Crawford, 2010). Even further out, exploration of Titan is promising in terms of finding evidence of life outside our planet (Shapiro & Schulze-Makuch, 2009). It is even possible that Titan has oceans of ammonia-water underneath a

Connecting sentence to 4th paragraph of the body

Content of 4th paragraph of body

Connecting sentence to conclusion.

crust of ice (Fortes, 2000; Lorenz et al., 2008). While previous technological discoveries are important, the potential for future discoveries on the history of our universe seems hard to overstate.

CONCLUSION

Throughout the history of humanity's quest for the stars, space exploration has provided numerous benefits. We have discovered countless new technologies through the need for research and development into spaceflight, as well as many instances of spin-off or byproduct technologies stemming from areas often entirely unrelated to the resultant common use. We can also gather invaluable information about our universe and its history from the study of other planets, moons, and celestial bodies, from as close as Earth's own moon, to the outer limits of our solar system and beyond. While resistance to funding for projects without universal approval will likely always be an issue, we should be spending as much as we can on space exploration.

Restatement
of content
discussed

4- Concluding statement.

Restatement of Assignment topic sentence / Thesis statement.
(Go back to question - have you answered the question?
Content words? Task words? Limiting words?

- Say what you are going to say.
- Say it.
- Say you said it.



Reference list.

References:

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<https://spinoff.nasa.gov/> (NP-2012-11-912-HQ). Spinoff Program Office.

<https://spinoff.nasa.gov/Spinoff2012/pdf/Spinoff2012.pdf>

Shapiro, R., & Schulze-Makuch, D. (2009). The search for alien life in our solar System: strategies and priorities. *Astrobiology*, 9(4), 335–343. <https://doi.org/10.1089/ast.2008.0281>

My performance estimates are on the following page as I wasn't sure how to include them directly on the rubric.

ENAB101 Portfolio Task 4 Rubric

	Superior	Accomplished	Developing	Beginning
Content	Essay topic explicitly addressed with extensive demonstration of specific content knowledge.	Essay topic addressed with demonstration of specific content knowledge.	Essay topic addressed but limited content knowledge evidenced.	Limited demonstration of content knowledge.
Structure and Organisation	Introduction, body, and conclusion are well defined and effective. Thesis and topic sentence are clear and relevant. There are smooth transitions between paragraphs. The paper reads smoothly.	Introduction, body and/or conclusion may have minor errors, but reader can still follow the flow of the paper.	Introduction, body, and/or conclusion have significant flaws which affect flow of paper, such as missing thesis, transition, topic sentence.	Paper may be missing a paragraph, thesis, or have some other structural error which makes the paper ineffective.
Content Knowledge	Student addresses the essay topic explicitly by applying her or his full and specific content knowledge.	Student demonstrates knowledge of content, but doesn't elaborate clearly—e.g., key details are missing.	Student gives plot summary or little analysis, demonstrating minimal content knowledge or understanding.	Student fails to provide any evidence of her or his comprehension of the content.
Grammar and Spelling	There are no spelling, grammatical, or punctuation errors.	There are minimal spelling, grammatical or punctuation errors.	There are substantial spelling, grammatical and/or punctuation errors.	There are numerous spelling, grammatical and punctuation errors.
Referencing	All in-text citations are used appropriately and formatted properly. More than one direct quote used to make specific and effective support to main idea.	In-text citations are used appropriately and formatted with minimal errors. At least one direct quote used that generally supports the main idea of a paragraph.	Some in-text citations are used and formatted, but with errors. At least one direct quote used, but use is out of context and not supportive of the main idea of a paragraph.	Very limited use of in-text citations and direct quotes.

Content: *Developing.* I didn't know much about this topic before I started researching so I feel like I wouldn't have done too well on this metric.

Structure and Organisation: *Accomplished.* I feel that my report was fairly well structured.

Content Knowledge: *Accomplished.* I'm not quite sure what this one is asking for but based on the examples in the rubric I would guess this is where I would be.

Grammar and Spelling: *Accomplished.* I'm pretty good with spelling (although auto-correct makes everyone good these days) and I don't think I'm bad with grammar so I think I should be ok.

Referencing: *Accomplished.* Based on the rubric I believe my report fits here.