AP®

AP® Seminar
End-of-Course Exam
Sample Student Responses and Scoring Commentary
Set 1

Inside:

Part B

☑ **Scoring Guidelines**

☑ **Student Samples**

☑ **Scoring Commentary**

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End-of-Course Exam: Part B   **24 points**

General Scoring Notes

- When applying the scoring guidelines, you should award the score according to the preponderance of evidence (i.e., best fit).
- Each row is scored independently.

0 (Zero)

A score of 0 is assigned to a single row of the rubric when the response displays a below-minimum level of quality as identified in that row of the rubric.

Scores of 0 are assigned to all rows of the rubric when the response is off-topic; a repetition of a prompt; entirely crossed-out; a drawing or other markings; or a response in a language other than English.

NR (No Response)

A score of NR is assigned to responses that are blank.

Reporting Category	Scoring Criteria			
Row 1 Establish Argument (0, 2, 4 or 6 points)	**0 points** Does not meet the criteria for 2 points.	**2 points** Misstates or overlooks a theme or issue that connects the sources. The response's perspective is unclear or unrelated to the sources.	**4 points** Identifies a theme or issue that connects the sources. The response derives its perspective from only one of the sources.	**6 points** The response identifies a theme or issue connecting the provided sources and presents a perspective that is not represented in one of the sources OR brings a particularly insightful approach to one of the perspectives OR makes a strong thematic connection among perspectives.
	Decision Rules and Scoring Notes			
	Typical responses that earn 0 points: • Are not related in any way to a theme that connects the provided sources (off-topic).	**Typical responses that earn 2 points:** • Offer a perspective that is unclear. • Demonstrate a simplistic or mistaken understanding of the provided sources. • May be dominated by summary rather than being driven by the student's perspective.	**Typical responses that earn 4 points:** • Offer a clear perspective that is derived from a single source or present a perspective that juxtaposes topics pulled directly from sources. • Offer a reasonable understanding of the provided sources. • Present a perspective that is trite, obvious, or overly general.	**Typical responses that earn 6 points:** • Offer a clear perspective that is either original or insightful. • Offer a perceptive understanding of the provided sources used. • Are driven by the student's perspective.
	Additional Notes • A perspective is a "point of view conveyed through an argument."			

Reporting Category	Scoring Criteria			
Row 2 Establish Argument (0, 2, 4, or 6 points)	**0 points** Does not meet the criteria for 2 points.	**2 points** The line of reasoning is disorganized and/or illogical. The response lacks commentary, or the commentary incorrectly or tangentially explains the links between evidence and claims.	**4 points** The argument is mostly clear and organized, but the logic may be faulty OR the reasoning may be logical but not well organized. The commentary explains the links between evidence and claims.	**6 points** The line of reasoning is logically organized and well-developed. The commentary explains evidence and connects it to claims to clearly and convincingly establish an argument.
	Decision Rules and Scoring Notes			
	Typical responses that earn 0 points: • Are not related in any way to a theme that connects the provided sources (off-topic).	**Typical responses that earn 2 points:** • Summarize the provided sources without linking them to one another or to an argument. • Offer very general or confusing commentary, if any, connecting evidence and claims. • Have a line of reasoning that fails.	**Typical responses that earn 4 points:** • Are organized well enough to discern the argument. • Provide inconsistent or incomplete explanations linking evidence and claims. • Make a claim that may be only partially supported. • Have a line of reasoning that is difficult to follow at times.	**Typical responses that earn 6 points:** • Are driven by the argument; points are intentionally ordered AND the links between claims and evidence are logical and convincing. • Are thoughtful or sophisticated (e.g., may address a counterargument) • Have a sound line of reasoning.
	Additional Notes • Line of Reasoning is "an arrangement of claims and evidence that leads to a conclusion." • Commentary is "a discussion and analysis of evidence in relation to the claim which may identify patterns, describe trends, and/or explain relationships."			

Reporting Category	Scoring Criteria			
Row 3 **Select and Use Evidence** **(0, 2, 4, or 6 points)**	**0 points** Uses one or none of the provided sources.	**2 points** Repeats or misinterprets information from at least two of the provided sources, or the information lacks relevance thereby providing little support for an argument.	**4 points** Accurately uses relevant information from at least two of the provided sources to support an argument.	**6 points** Appropriately synthesizes relevant information drawn from at least two of the provided sources to develop and support a compelling argument.
	Decision Rules and Scoring Notes			
	Typical responses that earn 0 points: • Use only one of the provided sources. • Do not make use of any of the provided sources.	**Typical responses that earn 2 points:** • Draw obviously mistaken conclusions from the sources. • Mismatch claims and evidence. • Offer evidence that has no bearing on the claims made.	**Typical responses that earn 4 points:** • Present evidence that adequately supports assertions. • Use quotations or paraphrases that generally match the claims. • Interpret the sources in a way that does not substantially contribute to the argument; may pull data or information from the sources but do not utilize that information in a thoughtful or insightful way.	**Typical responses that earn 6 points:** • Fully integrate the source materials into the argument and put the sources into conversation with one another. • May use a source to clarify points made in a second source, or to make a contrasting point, which is woven into the argument. • Present evidence invoked to support the writer's argument; the evidence is not the argument itself. • Interpret the evidence in a way that adds substantially to the argument.
	Additional Notes			

Reporting Category	Scoring Criteria			
Row 4 Apply Conventions (0, 2, 4 or 6 points)	**0 points** Does not meet the criteria for 2 points.	**2 points** Contains many flaws in grammar and style that often interfere with communication to the reader OR the response incorrectly or ineffectively attributes knowledge and ideas from sources.	**4 points** Is generally clear but contains some flaws in grammar and style that occasionally interfere with communication to the reader. The response accurately attributes knowledge and ideas from sources.	**6 points** Communicates clearly to the reader (although may not be free of errors in grammar and style) AND the response effectively integrates material from sources into the argument (e.g. it is clearly introduced, integrated, or embedded into the text) and accurately attributes knowledge and ideas.
	Decision Rules and Scoring Notes			
	Typical responses that earn 0 points: • Are not related in any way to a theme that connects the provided sources (off-topic).	**Typical responses that earn 2 points:** • Use grammar and syntax that is so clumsy as to make the meaning difficult to decipher. Require multiple readings to uncover meaning or intent. • Use blatant unattributed paraphrases and/or there is an absence of sources/quotation marks/reference to sources or their authors.	**Typical responses that earn 4 points:** • Are written in a style that is adequate, if sometimes clunky, but conveys basic meaning. • May contain multiple misspellings or other errors, but not so many as to impede understanding. May attempt elevated word choice but may be incorrect, or may lapse into colloquial language. • Refer to sources/authors and use quotation marks or paraphrases appropriately.	**Typical responses that earn 6 points:** • Feature writing that enhances the argument, are easy to read, and concise. Grammar and syntax need not be perfect. • May demonstrate an understanding of the context of the provided sources. • Weave source material effectively into the argument's composition. • Accurately cite sources (use quotation marks and paraphrases correctly).
	Additional Notes			

According to authors Zurab Pololikashvili and Young Tae Kim of the World Tourism Organization and International Transport Forum, carbon emissions from tourism transport totaled at a significant 982 million tons in 2005, posing several environmentally challenging outcomes. Due to such discoveries in recent times, discussions about the prevalence of global warming from human activity have rapidly outpaced even the yearly increase in the planet's actual temperature. Warming being a hotly debated theme, with some arguing for stricter regulations on greenhouse-related human activity and others for more complex solutions like a simulated environment, it is apparent that finding a solution requires cooperation and dialogue from various parties. However, in more closely considering the argument of the latter group, a possibly elevating question emerges: To what extent can modern nature simulation technologies be used to satisfy both desired human activity and responsible environmental outcomes? In answering this question, it appears that many pieces of relevant data point to one conclusion: Simulating outdoor activities using modern technology immensely benefits the terrestrial environment by reducing carbon-emitting activity while making positive therapeutic and escapist outcomes more accessible for diverse user groups.

Beginning with the user benefits of adapting nature using simulation, it appears it both provides cognitive benefits and makes nature more accessible. For instance, according to authors Matthew H. E. M. Browning et al. of Frontiers in Psychology, for people such as the 40 million Americans who are daily restricted from the sweet gift of nature due to their disability, an "inexpensive and convenient" solution is virtual reality (Source A). They find many of the therapeutic effects of real nature are carried over through simulations, suggesting that they improve "mood, cognitive functioning and physiological stress levels" (Source A). Because the authors place such certainty in the immersiveness of such simulations, they demonstrate that virtual nature can offer humans an inexpensive but highly effective form of natural therapy. In corroboration to these positive mental effects is author Katka Lapelosova of Fodor's Travel, who writes that outside escapism is "an exciting privilege" that "'grounds you in the present and requires you to deal with virtually everything that is normally mindless back home" (Source D). Connecting this to the possibilities offered by simulated nature, it is apparent that simulating the outdoors can also make retreating from normal life more accessible for users. Beyond simply allowing disabled patients to enjoy the outdoors, it can even allow users of diverse populations to enjoy otherwise unattainable escapist fun. As such, the use of simulated environments, whether they are simple nature settings or even other activities (such as traveling) can hold accessible positives for user cognition and escapist desire.

Furthermore, it seems such an attempt, which has proven to equally benefit humans, enables the preservation of nature by overall reducing carbon-emitting human activity. For instance, the aforementioned idea about users being able to simulate escapist travel or tourist destinations is expanded upon by authors Pololikashvili and Kim of the World Tourism Oragnization, who find that tourism-related emissions contributed to about 1.597 million tons of CO_2 in 2016 (Source C). Thus, they stress that humans are unsuccessfully managing the "great responsibilities" that come with tourism activity. However, as evidenced by Browning et al., the need for carbon-emitting tourism can be wholly eliminated by simulating outdoor environments using virtual reality (Source A). Therefore, the two sources collectively support the stance that simulated nature can be expanded to tourism, eliminating a form of human activity currently producing undeniably negative environmental outcomes. Thus, it can be said that virtual reality can be used to achieve positive environmental ends while retaining the psychological integrity of the outdoor experience.

Having established both the need and possible opportunities to implement nature simulations, it is necessary to more clearly explore the intricacies of the solution itself. For instance, it is apparent that 360-degree virtual reality systems have made demonstrably strides in mitigating stress and "[improving mood]" (Source A) in users, according to Browning et al. Therefore, it is imperative that users spread awareness of technology and spur future development. If such a plan is adopted, it is self-evident, for the reasons outlined above, that environmental positives would soon manifest. For instance, the pandemic was an isolating experience for many, and using its lessons learned can drive future dialogue about the implementation of virtual reality systems in the general public.

Although the crisis was viral at the time, it can be extended to the global warming crisis today. In this sense, another solution could involve prompting legislation provide a given number of virtual reality systems to households. Such a solution, although more involved, can result in greater strides toward balancing positive psychological outcomes and positive environment outcomes nationwide (or even interntionally). In a sense, the systems themselves are both the solutions and resolutions to the question at hand about compromising between human and environmental goals.

However, not everyone may see eye-to-eye in this regard. For instance, a popular argument in the process of such a solution's implementation may pertaing to its excessive costs. However, this can simply be refuted by understanding that, as claimed by Browning et al., virtual reality systems---especially if legislatively managed---are "inexpensive and convenient" (Source A). Despite this, some may complain that the physical, not psychological benefits, of outdoor activity are lost. However, according to the same source, the therapeutic effects of virtual reality simulated outdoor environments can be extended to broader "physiological stress levels," whose effects rest beyond simple cognition. In any case, the immense positive incomes for the environment and great escapist and mental positives for most are enough to argue that the positives of such a plan largely outweigh the negatives.

Thus, it is apparent that adopting virtual reality systems to simulate nature and outdoor experiences can combat global warming by reducing carbon-emitting human activities while maintaining the integrity and positive physiological effects of the outdoors. While many continue to contest the implementation of such solutions and demand greater, more restrictive legislation, the need to formulate a practical solution that will be accepted by a democratic majority grows salient. Therefore, the largest consideration and solution the above research provides is to spread awareness about environmental issues and combat them using *human* solutions. As such, it is important to approach the subject with both tact and literacy.

When problems occur in someones life their most common response is to run. In Source C it says that, "In 2030, the total number of tourist trips is expected to reach 37.4 billion". While vacations can be a great escape from reality they are also a way for someone to avoid their mental health problems and the traveling results in global pollution. Some people may not have access to new places because they are in the hospital or in assisted living with a limited view. Recently therapists have been studying Virtual Reality and the effects it has on mental health. In Source A it says that, "Numerous studies have shown that 360-degree nature videos are therapeutic and improve mood with 6,9, or 15 min.". This is a good solution for people who are stuck in an area, but what if it could be used for everyone? This leads people to wonder if travelling virtually can decrease the pollution in the world while still giving people an escape. If people can use the VR more frequently to deal with their mental health and enjoy a beautiful trip, they may take less trips which could decrease carbon emissions and result in less global pollution. This could be a more accessible way for people to deal with their mental health.

The Nature Virtual Reality can improve someones mental health by giving them a quick break from reality to decrease their stress. In Source D, DR. Carla Marie says, "In psychology, escapism is generally defined as a desire or behavior to ignore, evade or avoid reality,". The purpose of many trips is for people to express their escapism. When people use VR they may escape for a short time to calm themselves so they can have a better state of mind when they return to reality to face their problems. In Source A it says, "Recent advances make it easier for people to acquire and use this technology for therapeutic uses.". Going on vacation is a fun way to improve mood but it also takes planning and time. VR is accessible from home and can be changed to different locations quickly. The new technology helps improve mood much faster and can be done frequently to help overall mental health. When people don't travel as much, they also decrease the amount of carbon emissions that are released by those vehicles.

Less traveling will decrease the amount of carbon emissions and will result in less global pollution. In Source C it says, "All in all, from 2005 to 2016 the total transport-related emissions from tourism over the total man-made emissions grew from 3.7% to 5%,". This percent almost doubled in 11 years due to the crazy increase in traveling. The number of trips taken is predicted to keep increasing and so will the carbon emissions. In Source C it says, "In 2016, eleven years later,... an estimated 20 billion tourist trips were taking place. This number translates into transport-related emissions from tourism of a total of 1,597 million tonnes of CO2,". Traveling can be beneficial for mental health but to what extent. The extreme number of travelers are ending up polluting the world and making it less beautiful. While transportation is a big polluter, traveling takes up a large part of that.

Traveling is still a huge priority for some people and they may not be accepting of the VR technology. Even if people start to use the technology to replace some of their trips, it will decrease carbon emissions. Transportation is a large part of the pollution but we can't cut down all of it unless everyone stays home. That is not feasible because many occupations need people to be there in person. In Source D it claims that by 2030 that the total pollution related tourism from transport emissions will be 23%. If some people can resort to cutting down on traveling and using the Virtual Reality, it will help global pollution overall. This can still improve mental health struggles while also helping to save the planet.

The theme that theses two sources have is they have a issue and in the two sources they start to mention some ways of how it is that people decide to try to solve the problems, or what it is that some people may or may not do in order to get what they want in the sources.

The perspective that source A has is the author talking about how there are people that don't go outside to see nature because they don't feel comfortable going outside. So the solution to that problem that people are having is they decided that using a VR could benefit the exposure of nature to people through the VR headset. There were studies that showed that the 360-degree nature videos that the VR has are therapeutic and could improve the persons mood once they use it.

The perspective that source D provides is the author Katka Lapelosova, is talking about how some people may like to travel because traveling is a way of how they escape there problem that they have in that place, so when traveling they decide to go somewhere else to get there mind off of the problems that they may have, as a way to escape from their problems. So the solution to whenever they have a problem is that they decide to travel to leave whatever problem they have left behind, without having to worry about it, almost as if it would go away if they go away from the problem/issue that they have going on.

In conclusion, the theme these two sources have is they both have a type of solution to the issue they have. In source A the issue was that people don't feel comfortable going outside anymore, so what they thought the solution to it could be, was to get a VR that had nature to it so that they were able to see the nature but in the VR without actually having to go outside. For source D the issue was the question of weather people may travel to go away from there problems. In source D it does show some examples of what people have said about escaping their problems and leaving them behind. So basically the solution to any problem they have is to basically get away from them, and one of the main examples that they mention in source D is that many people decide to travel to get away from any problems/issues that they have going on there.

End-of-Course Exam
Part B: Synthesizing and Creating Evidence-Based Argument

Note: Student samples are quoted verbatim and may contain spelling and grammatical errors.

Overview

This question assessed students' ability to:
- Read the sources critically, understanding the different perspective of each source.
- Identify a theme or issue connecting the provided sources.
- Use the theme as an impetus for writing a logically organized, well-reasoned, and well-crafted argument presenting the student's perspective.
- Incorporate two or more of the sources to support the newly-developed argument.
- Build the argument with a series of logical claims.
- Link claims to supporting evidence.
- Cite sources, identifying them either by author or by letters assigned in the prompt.
- Complete the task within a 90-minute time period.

Sample: A
1 Establish Argument Score: 6
2 Establish Argument Score: 6
3 Select and Use Evidence Score: 6
4 Apply Conventions Score: 6

Row 1: Establish Argument
This response earned **6** points for this row because it presents an original take on the common theme of the natural environment and the ways human activity, such as travel, impact it. Specifically, the response proposes a compromise between the "environmental goals" and the human need to access the outdoors. The proposed solution is technological—simulated environments "whether they are simple nature settings or even other activities (such as traveling)." Such a solution is practical and is likely to be convincing to people from different backgrounds if implemented thoughtfully. This is a nuanced elaboration of the perspective.

Row 2: Establish Argument
This response earned **6** points for this row because it builds a solid line of reasoning with each claim supported by appropriate evidence. Throughout the response, robust commentary explains why selected evidence supports the overarching argument about modern technology as a solution for environmental concerns and for the human need for temporary escape.

The response first explains how "the therapeutic effects of real nature are carried over through simulations" and how this technology may be more accessible and affordable than travel. From health benefits, the response moves to environmental benefits of the "simulated outdoor environments." Each subsequent paragraph helps develop the overarching argument further. Paragraph four points out that the "global warming crisis" is comparable to the viral crisis and the lessons learned could help create plausible policy around simulated nature technology.

End-of-Course Exam
Part B: Synthesizing and Creating Evidence-Based Argument

Row 3: Select and Use Evidence

This response earned **6** points for this row because it orchestrates a nuanced conversation between the sources. The synthesis of ideas from different sources is evident in every paragraph and is often evident in individual sentences. For example, the second paragraph brings together sources A and D, pointing out, "Beyond simply allowing disabled patients to enjoy the outdoors, it can even allow users of diverse populations to enjoy otherwise unattainable escapist fun." Similarly, sources A and C are used to show that "simulated nature can be expanded to tourism" because of environmental concerns. A sophisticated understanding of the sources is evident in the student's commentary.

Row 4: Apply Conventions

This response earned **6** points for this row because it achieves both of the conditions that are required to score high for applying conventions: clear communication in writing and effective integration of the source material into the argument. The writing is not only clear, but also uses elevated word choice skillfully. For example, "adopting virtual reality systems to simulate nature and outdoor experiences can combat global warming by reducing carbon-emitting human activities while maintaining the integrity and positive physiological effects of the outdoors." Lastly, each source is not only accurately attributed, but also contextualized. Minor errors and typos do not distract from clearly communicating to the reader.

End-of-Course Exam
Part B: Synthesizing and Creating Evidence-Based Argument

Sample: B
1 Establish Argument Score: 4
2 Establish Argument Score: 4
3 Select and Use Evidence Score: 4
4 Apply Conventions Score: 4

Row 1: Establish Argument

This response earned **4** points for this row because it accurately identifies the thematic connection of balancing our need for the reprieve that nature provides and our environmental footprint. The response argues that VR technology can help mitigate "global pollution" while also helping people "deal with their mental health." However, the perspective is overly general and is derived directly from sources A and C without an original student perspective.

Row 2: Establish Argument

This response earned **4** points for this row because the argument about technology helping with "mental health struggles while also helping to save the planet" is generally clear throughout. The commentary is not robust and is source-driven instead of student-driven. When the response introduces evidence to support a claim, it does so in a simplistic manner each time. For example, "In Source C it says." After the ideas from the source are shared, the commentary minimally connects them to the overarching argument. Additionally, the commentary does not fully capture the nuance of the sources. For example, the response states that "The number of trips taken is predicted to keep increasing and so will the carbon emissions," while the actual increase of the total transport-related emissions from tourism from 2016 to 2030 is predicted to be 0.3% compared to a 2.3% increase from 2016 to 2030, according to Source C.

Row 3: Select and Use Evidence

This response earned **4** points for this row because it accurately uses information from two of the provided sources (sources A and D). However, the interpretation of the evidence is not particularly insightful. Instead, the response simply pulls from the sources to support its overall simplistic argument. Source D is used to support the claim that taking a break "from reality" can decrease stress, while Source A is used to suggest that VR can serve this purpose even more effectively because it is more easily accomplished than physical travel. While the response connects these responses in the same paragraph, there is little synthesis of ideas. The overall pattern is that of adequate work rather than of careful management and the orchestration of evidence needed to earn a high score for this row.

Row 4: Apply Conventions

This response earned **4** points for this row because while it is generally clear, the writing does not enhance the argument. Colloquialisms are used, for example, "crazy increase," and there are no attempts to use elevated word choice. Source C and Source D are confused in the concluding paragraph. Additionally, the student voice is weak in explaining the context of the sources. It does not explain, for example, how these sources emerged in a particular time or place.

End-of-Course Exam
Part B: Synthesizing and Creating Evidence-Based Argument

Sample: C
1 Establish Argument Score: 2
2 Establish Argument Score: 2
3 Select and Use Evidence Score: 2
4 Apply Conventions Score: 2

Row 1: Establish Argument

This response earned **2** points for this row because it is driven by summary of the sources rather than a student perspective. The response does not go beyond attempting to identify a theme, and the identification of the theme remains unclear as well: "The theme these two sources have is they both have a type of solution to the issue they have."

Row 2: Establish Argument

This response earned **2** points for this row because the commentary is so minimal that it fails to establish a line of reasoning. The second paragraph is a superficial repetition of some of the ideas from Source A, and the third paragraph does the same with Source D. The response does not contribute any ideas about these sources beyond providing a basic summary. The concluding paragraph attempts to bring these sources together; however, the commentary lapses once again into regurgitation of ideas from the sources rather than independent analysis.

Row 3: Select and Use Evidence

This response earned **2** points for this row because it merely presents a brief list of ideas from Sources A and D. Reporting what the sources say does not constitute a thoughtful use of the provided material. Furthermore, the response makes oversimplified statements about both sources, offering evidence that is too general to effectively work in the essay.

Row 4: Apply Conventions

This response earned **2** points for this row because, while it attributes ideas from the sources, the flaws in grammar and style impede communication to the reader. It takes multiple tries to fully understand the points that the response is trying to get across. For example, "The theme that theses two sources have is they have a issue and in the two sources they start to mention some ways of how it is that people decide to try to solve the problems."