2024

AP® Seminar Performance Task 1

Sample Student Responses and Scoring Commentary

Inside:

Individual Research Report

☑ Scoring Guidelines

☑ Student Samples

☑ Scoring Commentary

Individual Research Report (IRR) — 30 points

General Scoring Notes

- When applying the rubric for each individual row, you should award the score for that row based solely upon the criteria indicated for that row, according to the preponderance of evidence.
- Read the whole report before assigning a score for any row.
- Reward the student for skills they have demonstrated. Demonstrating means that there is evidence that you can point to in the report.

0 (Zero) Scores

- 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. For rows 1 to 4, if there is no evidence of any research (i.e., it is all opinion and there is nothing in the bibliography, no citation or attributed phrases in the response) then a score of 0 should be assigned.
- 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; a presentation (or other off-task format); or a response in a language other than English.

NR (No Response)

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

<table>
<tr><th>Reporting Category</th><th colspan="4">Scoring Criteria</th></tr>
<tr><td rowspan="4">Row 1

Understand and Analyze Context

(0, 2, 4 or 6 points)</td><td>0 points
Does not meet the criteria for two points.</td><td>2 points
The report identifies an overly broad or simplistic area of investigation and/or shows little evidence of research. A simplistic connection or no connection is made to the overall problem or issue.</td><td>4 points
The report identifies an adequately focused area of investigation in the research and shows some variety in source selection. It makes some reference to the overall problem or issue.</td><td>6 points
The report situates the student's investigation of the complexities of a problem or issue in research that draws upon a wide variety of appropriate sources. It makes clear the significance to a larger context.</td></tr>
<tr><td colspan="4">Decision Rules and Scoring Notes</td></tr>
<tr><td>Typical responses that earn 0 points:
Provide no evidence of research (i.e., there is a complete absence of bibliography, internal citations, and attributive tags that point to research. If one of these is present, cannot score 0).</td><td>Typical responses that earn 2 points:
Address a very general topic of investigation (e.g. "pollution").
Draw mainly from one or two sources or poor-quality sources.
Provide an overly simplistic, illogical, or exaggerated rationale for the investigation (or does not provide a rationale at all).</td><td>Typical responses that earn 4 points:
Identify too many aspects of the topic to address complexity (e.g. "air, water, and land pollution").
May be overly reliant on research sources not appropriate for an academic task on this topic.
May provide a rationale about the significance of the investigation that lacks details necessary to address complexity.</td><td>Typical responses that earn 6 points:
Clearly state an area of investigation that is narrow enough to address the complexity of the problem or issue (e.g. "water pollution in India"). The context established is sustained throughout.
Predominantly include research sources appropriate for an academic task on this topic.
Provide specific and relevant details to convey why the problem or issue matters/is important.</td></tr>
<tr><td colspan="4">Additional Notes
The research context is located often in the titles of the reports and first paragraphs, but the whole report needs to sustain the focus throughout.
Review Bibliography or Works Cited (but also check that context is established by sources actually used, especially academic sources).</td></tr>
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<tr><th>Reporting Category</th><th colspan="4">Scoring Criteria</th></tr>
<tr><td rowspan="4">Row 2

Understand and Analyze Argument

(0, 2, 4 or 6 points)</td><td>0 points
Does not meet the criteria for two points.</td><td>2 points
The report restates or misstates information from sources. It doesn’t address reasoning in the sources or it does so in a very simplistic way.</td><td>4 points
The report summarizes information and in places offers effective explanation of the reasoning within the sources’ argument (but does so inconsistently).</td><td>6 points
The report demonstrates an understanding of the reasoning and validity of the sources' arguments.* This can be evidenced by direct explanation or through purposeful use of the reasoning and conclusions.</td></tr>
<tr><td colspan="4">Decision Rules and Scoring Notes</td></tr>
<tr><td>Typical responses that earn 0 points:
Provide no evidence of research (i.e., there is a complete absence of bibliography, internal citations, and attributive tags that point to research. If one of these is present, cannot score 0).</td><td>Typical responses that earn 2 points:
Make no distinction between paraphrased material and response’s commentary.
Demonstrate no instances of effective explanation. (For example, commentary is limited to restatement of quotes, is simplistic or overgeneralized, or shows misunderstanding of the source.)
Do not anchor ideas to sources (or does so generally, “research shows” or “some studies”).</td><td>Typical responses that earn 4 points:
Are dominated by summary of source material rather than explanation of sources’ arguments.
Provide some instances of effective explanation of authors’ reasoning.
Occasionally lack clarity about what is commentary and what is from the source material.</td><td>Typical responses that earn 6 points:
Provide commentary that explains authors’ reasoning, claims or conclusions (direct explanation).
Make effective use of authors’ reasoning, claims or conclusions (showing understanding of the sources) (purposeful use).
Attribute clearly source material (i.e., readers always able to tell what comes from what source).</td></tr>
<tr><td colspan="4">Additional Notes
* Validity is defined as “the extent to which an argument or claim is logical.”
Reference to arguments from the sources used often appears at the end of paragraphs and / or immediately following an in-text citation as part of the commentary on a source.
Clear attribution, (i.e. readers are always able to tell what comes from what source and what kind of source it is) must be present in order for the report to demonstrate “purposeful use.”</td></tr>
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<tr><th>Reporting Category</th><th colspan="4">Scoring Criteria</th></tr>
<tr><td rowspan="4">Row 3

Evaluate Sources and Evidence

(0, 2, 4 or 6 points)</td><td>0 points
Does not meet the criteria for two points.</td><td>2 points
The report identifies evidence from chosen sources. It makes very simplistic, illogical, or no reference to the credibility of sources and evidence, and their relevance to the inquiry.</td><td>4 points
The report in places offers some effective explanation of the chosen sources and evidence in terms of their credibility and relevance to the inquiry (but does so inconsistently).</td><td>6 points
The report demonstrates evaluation of credibility of the sources and selection of relevant evidence from the sources. Both can be evidenced by direct explanation or through purposeful use.</td></tr>
<tr><td colspan="4">Decision Rules and Scoring Notes</td></tr>
<tr><td>Typical responses that earn 0 points:
Provide no evidence of research (i.e., there is a complete absence of bibliography, internal citations, and attributive tags that point to research. If one of these is present, cannot score 0).</td><td>Typical responses that earn 2 points:
Provide evidence that is poorly selected in terms of relevance and credibility (e.g., evidence that is irrelevant or only obliquely relevant).
Provide evidence without addressing relevance and credibility.
Demonstrate consistent lack of understanding of selected evidence.
May include credible sources, but oversimplify or reduce them to generalities.</td><td>Typical responses that earn 4 points:
Contain attributions or explanations for non-academic sources that do not successfully establish credibility (e.g., “John Doe, a journalist, explains…”).
Pay attention to the evidence, but not the source (may treat all evidence as equal when it is not).
At times may demonstrate lack of understanding of selected evidence and/or its relevance.
Draw upon outdated research without providing a rationale for using that older evidence.</td><td>Typical responses that earn 6 points:
Provide descriptions in the attributions that effectively establish credibility of the source and relevance of evidence (direct explanation).
Make effective use of well-chosen, relevant evidence from credible academic sources (purposeful use).</td></tr>
<tr><td colspan="4">Additional Notes
In Row 1, the judgement is whether the bibliography allows for complex context; Row 3 judges whether the incremental examples of evidence presented are well-selected and well-used.
Purposeful use, in this case, refers to the deployment of relevant evidence from a credible source. Clear attribution, (i.e. readers are always able to tell what comes from what source and what kind of source it is) must be present in order for the report to demonstrate “purposeful use.”</td></tr>
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<tr><th>Reporting Category</th><th colspan="4">Scoring Criteria</th></tr>
<tr><td rowspan="4">Row 4

Understand and Analyze Perspective

(0, 2, 4, or 6 points)</td><td>0 points
Does not meet the criteria for two points.</td><td>2 points
The report identifies few and/or oversimplified perspectives from sources.**</td><td>4 points
The report identifies multiple perspectives from sources, making some general connections among those perspectives.**</td><td>6 points
The report discusses a range of perspectives and draws explicit and relevant connections among those perspectives.**</td></tr>
<tr><td colspan="4">Decision Rules and Scoring Notes</td></tr>
<tr><td>Typical responses that earn 0 points:
Provide no evidence of research (i.e., there is a complete absence of bibliography, internal citations, and attributive tags that point to research. If one of these is present, cannot score 0).</td><td>Typical responses that earn 2 points:
May include oversimplified or vaguely attributed perspectives (it is unclear whether or not they are from sources).
May identify information from sources (facts or topics or general stakeholder point of view) but not points of view as conveyed through arguments.
Juxtapose perspectives but connections are not clear (they are isolated from each other).</td><td>Typical responses that earn 4 points:
Include multiple perspectives and some instances of general connections.
Repeat perspectives or connections rather than developing a nuanced, detailed discussion of how they relate.
At times present perspectives that are clearly derived from specific sources, but may lapse into opinions or topics that are not clearly linked to specific sources.</td><td>Typical responses that earn 6 points:
Go beyond mere identification of multiple perspectives by using details from different sources’ arguments to explain specific relationships or connections among perspectives (i.e., placing them in dialogue).
Scoring note: There must consistently be clear attribution or citation linking perspectives to sources to score high.</td></tr>
<tr><td colspan="4">Additional Notes
**A perspective is a “point of view conveyed through an argument.” (This means the source’s argument). Facts, topics, and general stakeholder points of view (e.g., “teachers” or “students”) are not perspectives.
Throughout the report pay attention to organization of paragraphs (and possibly headings) as it’s a common way to group perspectives.
Readers should pay attention to transitions as effective transitions may signal connections among perspectives.</td></tr>
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<tr><th>Reporting Category</th><th colspan="4">Scoring Criteria</th></tr>
<tr><td rowspan="4">Row 5

Apply Conventions

(0–3 points)</td><td>0 points
Does not meet the criteria for one point.</td><td>1 point
The report includes many errors in attribution and citation OR the bibliography is inconsistent in style and format and/or incomplete.</td><td>2 points
The report attributes or cites sources used but not always accurately. The bibliography references sources using a consistent style.</td><td>3 points
The report attributes and accurately cites the sources used. The bibliography accurately references sources using a consistent style.</td></tr>
<tr><td colspan="4">Decision Rules and Scoring Notes</td></tr>
<tr><td>Typical responses that earn 0 points:
Provide no evidence of research (i.e., there is a complete absence of bibliography, internal citations, and attributive tags that point to research. If one of these is present, cannot score 0).</td><td>Typical responses that earn 1 point (many errors):
Include internal citations, but no bibliography (or vice versa).
Demonstrate no organizational principle in bibliography/works cited (e.g., alphabetical or numerical).
Provide little or no evidence of successful linking of in-text citations to bibliographic references (e.g., in-text references are to titles but bibliographic references are listed by author; titles are different in the text and in the works cited).
Include poor or no attributive phrasing with paraphrased material (e.g., “Studies show...”; “Research says...” with no additional in-text citation).</td><td>Typical responses that earn 2 points (some errors):
Provide some uniformity in citation style.
Provide, perhaps with a few lapses, an organizational principle in bibliography/works cited (e.g., alphabetical or numerical).
Include unclear references or errors in citations, (e.g., citations with missing elements or essential elements that must be guessed from a url).
Provide some successful linking of citations to bibliographic references.
Provide some successful attributive phrasing for paraphrased material and/or in-text parenthetical citations.</td><td>Typical responses that earn 3 points (few significant flaws):
Contain few flaws.
Provide clear organization principle in bibliography/works cited.
Provide consistent evidence of linking internal citations to bibliographic references.
Include consistent and clear attributive phrasing for paraphrased material and/or in-text parenthetical citations.
Scoring note: The response cannot score 3 points if essential elements of citations (i.e., author/organization, title, publication, date) are consistently missing.</td></tr>
<tr><td colspan="4">Additional Notes
In AP Seminar, there is no requirement for using a particular style sheet; however, responses must use a style that is consistent and complete.
Check the bibliography for consistency in style (and if there are essential elements missing).
Check for clarity/accuracy in internal citations.
Check to make sure all internal citations match up to the bibliography. In order for links to work in print, there must be a clear organizational principle arranging the elements on the bib/works cited.</td></tr>
</table>

Reporting Category	Scoring Criteria			
Row 6 **Apply Conventions** **(0–3 points)**	**0 points** Does not meet the criteria for one point.	**1 point** The report contains many flaws in grammar that often interfere with communication to the reader. The written style is not appropriate for an academic audience.	**2 points** The report is generally clear but contains some flaws in grammar that occasionally interfere with communication to the reader. The written style is inconsistent and not always appropriate for an academic audience.	**3 points** The report communicates clearly to the reader (although may not be free of errors in grammar and style). The written style is consistently appropriate for an academic audience.
	Decision Rules and Scoring Notes			
	Typical responses that earn 0 points: • Contain no sentences created by the student. (If there are any sentences created by the student, cannot score 0).	**Typical responses that earn 1 point:** • May contain many instances where sentences are not controlled. • May rely almost exclusively on simplistic language (e.g., This is good. This is bad). • Employ an overall style that is not appropriate for an academic report; or colloquial tone. • Include many passages that are incoherent. • Provide too few sentences to evaluate or the student's own words are indistinguishable from paraphrases of sources.	**Typical responses that earn 2 points:** • Contain some lapses in sentence control (e.g., run-ons, fragments, or mixed construction when integrating quoted material). • Demonstrate imprecise or vague word choice insufficient to communicate complexity of ideas. • Sometimes lapse into colloquial language. • Use overly dense prose at the expense of coherence and clarity.	**Typical responses that earn 3 points:** • Contain few flaws which do not impede clarity for understanding of complex ideas. • Demonstrate word choice sufficient to communicate complex ideas. • Use clear prose.
	Additional Notes • Because this is a **report**, the prose is judged by its ability to clearly and precisely articulate complex research content. • Readers should focus on the sentences written by the student, not those quoted or derived from sources.			

Artificial Intelligence In Healthcare: How Much has AI Advanced the Medical Field?

AP Seminar

Feb 2, 2024

Word Count: 1299

Artificial intelligence has made a recent uprising in many sectors of the world expanding over areas like business, transport, and health care. Currently, people think of AI as a tool that can answer questions, or give them ideas on business cases. Riaz from the University of California Riverside states, Artificial intelligence has a multitude of applications within medicine and healthcare, many being in medical imaging, disease detection and diagnosis, and treatment planning (Riaz et al., 2023, p. 43-44). The use of artificial intelligence has made a significant impact on the medical field with major improvements in the fields of radiology, endoscopy, cardiology, and diagnosis.

Within the healthcare industry, artificial intelligence has become prominent in areas of patient data analysis and general practice. While the population uses AI, they are not fully aware of the workings and functions of the intelligence that could be learning from their data constantly. Much of artificial intelligence used in practice consists of algorithms and software to estimate how clinicians think while analyzing medical data (Loh, 2018, p. 59). This kind of AI modeling is used in radiology or medical imaging, and paves a way for AI to involve itself in areas similar to imaging. For a long time, physicians were visually assessing and analyzing medical images to conclude their findings, sometimes being subjective, but with the introduction of AI, complex patterns and visuals in imaging data can be recognized by AI with more accurate and quantitative results (Hosny et al., 2018, p. 2). According to a study by Koichiro Yasaka from the University of Tokyo, deep learning AI models can detect significant abnormalities using chest radiographs, the most employed piece of equipment in radiology, performing on a near-human level. Subsequently, Yasaka states that these models of AI can benefit radiology, becoming a training tool for educating radiologists to gain confidence in difficult scenarios, and a higher percentage of agreement among clinicians (2018, p. 1). As a professional from the

Canbera Health Services states, self-learning artificial intelligence can also be seen in AI-CAD systems and their ability to reduce the number of false results per medical image by almost 69%. The usage of AI-CAD was seen to reduce case reading time by almost 17%, contributing to a faster and more reliable form of diagnosis (Najjar, 2023, p. 10). With improved ability, medical professionals are able to expedite the treatment process and deployment of medication.

AI also has its own benefits and improvements that are brought to cardiology and cardiovascular healthcare. As Kipp Johnson, a physician at Northwestern University, says, AI and machine learning in cardiology is to be used as a set of tools to expand the effectiveness of the cardiologist, resulting more efficient, convenient, personalized, and effective clinical practice as a result of growing demand for faster and personalized care from patients (2018, p. 1). This speed up is evident in the electrocardiogram (ECG), a vital tool in clinical practice recording electrical signals from the heart to check for heart conditions, bringing more attention to the non-human version of healthcare. The ECG is used for the prediction and identification of cardiovascular emergencies, for example, a heart attack (MI). AI models in echocardiography have been taught to recognize certain images and patterns of cardiac diseases (Yasmin et al., 2021, p. 8). From a research journal developed at Transilvania University, deep learning networks in diagnosing MI use past ECG data to learn from 10,546 signals of regular heartbeat signals, and 40,182 MI signals with and without sound, producing high accuracy rates in the diagnosis of a heart attack at around 93.53% for a diagnosis with sound, and 95.22% without the sound of heartbeats (Hatfaludi et al., 2023, p. 3). Indicating AI's accuracy in recognizing cardiac emergency symptoms. With the upbringing of AI into the space, cardiologists and clinicians alike are able to accurately predict early stages of different heart conditions and work on treatment plans for patients.

As the impact of AI continues to unfold in the area of cardiology, its applications extend far beyond cardiovascular health care. Artificial intelligence has taken large strides in endoscopy, and by using AI's capabilities in these fields, endoscopic procedures and the diagnosing of their illnesses will become far more precise and efficient, shown by recent advancements. As said by the Saudi Journal of Gastroenterology, the AI it is based on is called computer-aided detection (CAD), and is split into three categories, CADe for detection of abnormalities, CADx is for predicting diagnoses by characterizing abnormalities, and CADq for improving overall endoscopic procedure (Arif et al., 2023, p. 2). All applications assist endoscopists in recognizing polyps, a mass found in the colon, of which, neoplasms, can develop into cancer. The usage of the CAD systems yielded an equal or higher percentage of accuracy than endoscopists while detecting early forms of neoplasms in the esophagus (Arif et al., 2023, p. 2). As a result of this accuracy difference, the ability of AI to provide a significant advantage to endoscopists will help identify overlooked early stages of cancer, then being able to provide a diagnosis much earlier. Along with its usage in identifying polyps in the esophagus, it also plays a role in the recognition of gastric cancer in the stomach. From the department of Gastroenterology and Hepatology, as the CAD system was deployed for the detection of gastric cancer, it produced a diagnostic accuracy of 91% rather than 87% from expert endoscopists, and 74% from non experts (Tokat, et al., 2021, p. 8). Most procedural trials conducted with AI or CAD systems have yielded a positive result, sometimes doing better than experts in the field, portraying its potential benefits to identifying early gastric cancer within patients.

Finally, AI is also impactful in the field of diagnosing severe or rare illnesses, such as cancer. In a recent study by Magda Wojtara and her peers, she said AI in these scenarios work by acting as a support system for the practitioner, providing lists of relevant differential diagnoses.

She mentions that similar AI have been used in the detection and diagnosis of the COVID-19 disease by tracking demographic, clinical, and epidemiological characteristics of patients (Wojtara et al., 2023, p. 2). As the system is used, patients are provided with treatment plans that could result in a positive outcomes. Lung cancer is one of the most common cancers in the US with high fatality rates. In recent years, artificial intelligence has been found to be able to detect malignant pulmonary nodules from chest CT images, allowing accurate diagnosis and prediction (Pei et al., 2022, p. 2-3). Although AI has not been a fully reliable source for treatments, it still provides a much faster alternative to manually deciding which compounds to use for a personalized lung cancer treatment (Pei et al., 2022, p. 6). Additionally, with the population growth and the shortage of medical practitioners, AI can serve as a great partner to help with initial diagnoses, speeding up the treatment plan for patients.

As the healthcare field is constantly changing and adapting to new challenges, artificial intelligence has served as a great partner in improving patient care, access, and ultimately improving medical outcomes. With the introduction of artificial intelligence into the medical field, it has brought along a number of improvements, like accurate cancer and disease detection from scans or procedures and early cardiovascular emergency prediction. With the case studies presented, it clearly indicates the contribution of AI to healthcare, improving the efficiency of a patient's personal healthcare plan. While AI is in a constant state of evolution, it may develop a stronger relationship with the healthcare field and may be seen growing into people's daily lives that can further help to provide effective and fast patient care without leaving their homes, creating a safer environment in and out of the hospital.

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The Social Influence of Collegiate Sports

Word Count: 1089

College brings new experiences and life lessons to young adolescents entering into the real world. New and foreign responsibilities are added onto college students who are leaving home for the first time on top of keeping up with school work and their social lives. While the college experience already puts a lot on college students, collegiate student-athletes have an extra responsibility on their backs. In his quote, Earl Campbell- former NFL player- says, “I talk to student-athletes. I try to get them to remember that they’re not just athletes, but student-athletes. You need to get an education, keep your hands clean and try to represent the university.” However, student athletes may also experience a few benefits especially on the social side. Through the social lens, collegiate athletes can be analyzed to determine the social benefits college athletics may bring.

To start, sports create a sense of community for collegiate athletes that other students may struggle to find. In 2017, the Journal of Applied Sports Psychology published an article emphasizing the idea that, “leaders, coaches, teammates, and teachers create a social psychological climate through their behaviors and interpersonal interactions with followers, players, fellow teammates, and students” (Hall et. al 2017). College athletics create an environment and a web of connections and relationships. Through participating in a sport, college athletes are surrounded by peers with common interests, goals, and other similarities. Student athletes can form new relationships and meet new people. Social interactions are more important than ever in modern day society due to new technologies and social media. Jan Schaffer, a civic journalist, reports that, “people’s social and emotional intelligence have been

impaired by the displacement of personal interactions with online interactions" (Anderson and Rainie 2018). Meaningful social interactions have decreased in the modern society run by technology. However, sports can act as an outlet for collegiate athletes to still maintain social interactions while keeping up with school work, responsibilities, and the sport itself. Oftentimes, the sport requires these social interactions to take place. Along with allowing social interactions to bloom, "[sports are] thought to bring people of diverse backgrounds into a common community" (Dixon and Warner 2011). The increasing diversity of sports teams across the country can allow athletes to experience new cultures and learn to work with others from different backgrounds. A sense of community allows all athletes to feel belonging and safety with others, no matter their race, religion, or ethnicity. Why does a sense of community matter? A sense of community not only increases social interactions but also "a strong SOC, [sense of community], is associated with subjective well-being among members, decreased levels of loneliness, lower drug use and delinquency among students, and increased civic participation" (Dixon and Warner 2011). Collegiate sports can help collegiate athletes integrate into college life. From high school to college, resocialization occurs and sports create an easier pathway for student athletes to integrate into a new society and adulthood.

In addition, through a sense of community created in sports teams, interpersonal skills can be used and developed. Through their study of athletic identity and life roles of collegiate athletes, Griffith and Johnson, sponsored by the Department of Psychology at University of Wisconsin La Crosse, explore the fact that "college years are a dynamic period of development for students. Key developmental tasks include establishing independence, solidifying a firm identity, learning to manage relationships, and planning for future and lifestyle goals" (Griffith

and Johnson 2002). After high school, students enter the real world and leave for college, exiting the protection and comfort of their home and parents. Consequently, away from the support of their parents, college students take on new responsibilities of adulthood which is a culture shock for many. However, athletics can help teach students "self-discipline, teamwork, confidence, work ethic, and leadership," that aid students in the dynamic period of development in college (Griffith and Johnson 2002). While interpersonal skills can be instrumental in college, they also can be applicable to the workforce and career settings. Interpersonal skills are important to effective communication and being involved in the social interactions and environments careers may entail. All in all, "sport events could be leveraged to enrich social lives, aid in building social capital, and advance social initiatives" (Dixon and Warner 2011). Participation in college athletics channels social skills and interactions with teammates as well as coaches. Sports help athletes gain social skills and initiate contact with teammates that can consequently help athletes make new friends. Whether still in college or not, developing social skills through sports can benefit student-athletes for the rest of their lives.

On the contrary, student athletes may find time management a struggle while competing at a high level. According to the NCAA, a nonprofit organization that regulates student athletics and athletic programs of colleges across the United States, "one of the biggest adjustments to college life is learning how to manage your time between academics, athletics, employment, social life and perhaps most importantly, sleep," ("Balance Your Schedule" 2021). College is a huge life adjustment for college students leaving home for the first time. While many students struggle with time management, student athletes have an extra responsibility for sports in order to compete at the top level. As a result, when surveyed by Frontiers in Psychology in their

academic journal, student athletes reported time management as being their biggest challenge related to academic performance (Davis et. al 2019). While time management may take awhile for new student athletes to figure out, in the long run, it prepares student athletes for the future. After college, student athletes will greatly benefit from the time management skills acquired and can then apply them to career settings. Seeming restrictive at the moment, the time management skills acquired will come in handy for the future.

In conclusion, the social lives of collegiate student athletes can be enriched through sports teams and events. Establishing a sense of community teaches athletes interpersonal skills, provides them with an outlet of social interactions, and exposes them to new cultures and people with different backgrounds. Also, collegiate sports can help students develop social skills and ease into college life as well as adulthood. Finally, while time management may be problematic for new student athletes with school, sports, and keeping a social life, it teaches time management skills that can be applied to the workforce in the future. The transition from high school to college is difficult for many. However, the social life of a collegiate life, while it may be busy, prepares students for the realities of the real world.

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Who is acidifying our ocean?

(Word Title: 656)

Introduction

By the year 2100 if ocean acidification continues our ocean PH level would be 100-150% times more acidic. (Jiang) According to the EPA, United States Environmental Protection Agency, marine acidification faces a ¨two twofold ¨challenge against ocean acidification. The EPA also states that ocean acidification is a challenge in that it can harm life that depends on carbonate-based shells/skeletons, harm organisms that are sensitive to acidity, and lastly it can affect animals that are higher in the food chain that feed on the affected animals. Apart from this, the term ¨Ocean Acidification¨ is referred to as the lowering level of the pH level in the ocean (NOAA). The reason why it's important is that the whole ocean is getting affected which is everyone's ocean and people worldwide rely on food from the ocean. However, do large corporations contribute more to ocean acidification than we individuals? There are many ways to think of this question but if we don't do anything people might not know what the future holds. I believe that if we don't change anything about our actions I believe our oceans will be ruined. Additionally, both individuals and big companies have equal responsibility for ocean acidification. Viewing it in a futuristic way has helped contribute to seeing what can be some of the many outcomes.

How is ocean acidification caused?

Ocean acidification is caused by carbon dioxide. Carbon dioxide can come from multiple sources like individuals and corporations. According to the EPA, it is said that a person averages

about 4.6 metric tons of carbon dioxide per year. Adding on, this number can vary due to many reasons like the number of miles. This shows that a single person with a gas car can create a significant amount of carbon dioxide. On these terms, we can presumably imagine the vast amount of carbon emissions by multiple people owning gas-fuel cars. However, it's not only the individuals who create carbon emissions but corporations as well. According to NRDC, the US's most effective and successful environmental group has reported: "100 energy companies have been responsible for 71% of all industrial emissions". Ultimately, this is only 100 companies out of many other energy companies. Most of this research is from the present, which leads there might be larger numbers in the future if things continue. However, if carbon emissions continue from both individuals and corporations our ocean can be left in ruins.

How do Corporations contribute to OA?

Corporations emit a vast amount of carbon dioxide. Approximately, corporations make about 108 metric tons of carbon dioxide due to plastic production (CIEL). CIEL is a trustable organization that has launched projects to better the environment and has received a charity score of 99%, additionally earning its 4-star rating. As suggested by CIEL a solution for this is to end the production and use of single-use plastic. According to Statista, in 2021 in the US the corporation with the most carbon dioxide emissions was Vistra Energy with 112 million metric tons. Statista is the go-to for governments, academics, and businesses for accurate and reliable data. Statists have also been used for teaching purposes. This truly shows how much carbon emissions corporations contribute to. However, it is also best to see about the consumers, the individual.

How do individuals contribute to ocean acidification?

Individuals can also create carbon emissions, all together it adds up to a lot of carbon dioxide. A report by the EPA shows that transportation made up 28% of greenhouse gasses in 2021. Carbon dioxide is one of the greenhouse gasses which is acidifying our ocean. Transportation can be cars, buses, trains, etc. ”A 2015 study found that the production and use of household goods and services was responsible for 60 percent of global greenhouse gas emissions” (Cho). This is a report from the Columbia Climate School. With the research, it shows that individuals can indeed create a vast amount of carbon emission.

If carbon emissions continue, our oceans will be acidified. Both individuals and corporations have an equal responsibility to ocean acidification.

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Performance Task 1
Individual Research Report

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

Overview

This task assessed the individual student's ability to:

- Investigate a particular lens, approach or range of perspectives on the research topic (selected by a student team).
- Conduct scholarly research relevant to the topic.
- Produce an evaluative report on the research conducted, analyzing the reasoning within the sources as well as the relevance and credibility of evidence used in those sources.

Sample: A
1 Understand and Analyze Context Score: 6
2 Understand and Analyze Argument Score: 6
3 Evaluate Sources and Evidence Score: 6
4 Understand and Analyze Perspective Score: 6
5 Apply Conventions (Attribution & Citation) Score: 3
6 Apply Conventions (Style & Grammar) Score: 3

Row 1: Understand and Analyze Context

The report earned a score of **6** in this row because it identifies an issue that is narrow in scope (the use of AI in the medical field) and draws upon a wide variety of academic sources, particularly peer-reviewed journals (e.g., *Journal of Cardiovascular Emergencies*, *Digestive Diseases, Clinical Chemistry and Laboratory Medicine)*. The report makes clear the significance of Artificial Intelligence to advancements in radiology and imaging; its ability to predict and diagnose medical complications in the fields of gastroenterology, cardiology, and oncology; and ultimately its positive impact on doctors and patients.

Row 2: Understand and Analyze Argument

The report earned a score of **6** in this row because it consistently demonstrates a clear understanding of the sources' arguments through purposeful use and direct explanation. In paragraph 2, several peer-reviewed sources (Loh, Hosny, etc.) are purposefully used to describe how AI has improved data analysis. Towards the end of page 3, findings from the Hatfaludi et al. source are used to explain AI's accuracy when detecting cardiac symptoms. On page 3, the response demonstrates an understanding of the validity and reasoning of Johnson's argument that AI improves cardiologists' effectiveness through discussion of the use of ECGs "to check for heart conditions." On page 5, the last sentence before the conclusion paragraph contains commentary that demonstrates a strong understanding of the previous two sources' (Wojtara, Pei) arguments.

Row 3: Evaluate Sources and Evidence

The report earned a score of **6** in this row through its consistent, purposeful use of well-chosen evidence from credible academic sources. Attributive phrasing (e.g., Tokat et al. are from a "department of Gastroenterology and Hepatology") further establishes the credibility and relevance of sources through direct explanation.

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Individual Research Report

Row 4: Understand and Analyze Perspective
The report earned a score of **6** in this row because it identifies a range of perspectives on AI in healthcare and draws explicit and relevant connections between them. For example, on page 2, the report discusses Loh's findings that AI is "used in practice … to estimate how clinicians think while analyzing medical data." The report illustrates through the Hosny source the success of this practice in radiology and medical imaging for more "accurate and quantitative results." The paragraph then provides specific details from the Yasaka and Najjar sources that further demonstrate a range of perspectives from "medical professionals" on how AI can "expedite the treatment process and deployment of medication." Attributions and citation linking are largely clear throughout the response, further enabling dialogue among perspectives.

Row 5: Apply Conventions (Attribution & Citation)
The report earned a score of **3** in this row because the reference list accurately cites sources using a consistent style, clear (alphabetical) organization, and all essential elements are present (i.e., author/organization, title, publication, journal volume, date). The flaw in the reference list (a mis-alphabetized source) is not enough to lower the score. Most or all sources on the reference list are clearly and consistently linked within the response through in-text citations and attributive phrasing.

Row 6: Apply Conventions (Style & Grammar)
The report earned a score of **3** in this row because the style is consistently appropriate for an academic audience. Though not free of grammatical errors (e.g., sentence fragment on page 3: "Indicating AI's accuracy in recognizing cardiac emergency symptoms."), the report consistently uses clear prose to communicate complex ideas effectively.

Performance Task 1
Individual Research Report

Sample: B
1 Understand and Analyze Context Score: 4
2 Understand and Analyze Argument Score: 4
3 Evaluate Sources and Evidence Score: 4
4 Understand and Analyze Perspective Score: 4
5 Apply Conventions (Attribution & Citation) Score: 2
6 Apply Conventions (Style & Grammar) Score: 2

Row 1: Understand and Analyze Context
The report earned a score of **4** in this row because it develops too many aspects of the topic to address complexity (e.g., community, interpersonal skills, meaningful social interactions, experiencing new cultures, working with people from diverse backgrounds, time management challenges). The research area is adequately described as the social benefits of participation in college athletics; however, the rationale lacks detail (e.g., the introduction cites no academic sources; the response does not make clear why this issue is important). The References page contains one clearly peer-reviewed source (Hall) and some variety in selection of sources, but it is difficult to tell the nature of some of the sources (e.g., Dixon and Griffith).

Row 2: Understand and Analyze Argument
The report earned a score of **4** in this row because in places it offers some effective explanation of the reasoning of a source's argument. (For example, see discussion of Dixon and Warner's reasoning regarding the benefits of diversity for participants in college athletics, page 3). In other places, the response merely summarizes the sources' arguments. (On page 2, for example, the response quotes Schaffer and then merely restates the quote in other words at the top of page 3). In still other places, the response lacks clarity about what is commentary and what is from the source material. (On page 2, for example, it is unclear whether the sentences following the Hall quotation are the writer's commentary or a summary of ideas from the source.) Overall, the response does offer some effective explanation, but does so inconsistently.

Row 3: Evaluate Sources and Evidence
The report earned a score of **4** in this row because it is inconsistent in demonstrating the credibility and relevance of the chosen sources and evidence. On page 4, the response establishes the relevance and credibility of the NCAA as a source of evidence regarding athletes' struggles with time management by describing it as "a nonprofit organization that regulates student athletics and athletic programs of colleges across the United States." At other times, the response does not make a case for either relevance or credibility of sources. For example, at the bottom of page 2, Jan Schaffer is described as a "civic journalist" who is quoted in the Anderson and Raine source, which the bibliography lists as a Pew Research Center (think-tank) article. It is left unclear why this source, which addresses "*the future of people's well-being"* (pg. 6), is relevant to a report focused specifically on college athletes. At times, the response pays attention to the author or evidence, but does not evaluate the source. For example, on page 3, the attributive tag for Griffith and Johnson (the response notes that they are "sponsored by the department of Psychology at University of Wisconsin La Crosse") does some work towards credibility. However, it is unclear whether this work derives from a relevant and credible *source*. Overall, the response unevenly demonstrates the skill of evaluating sources and evidence.

Performance Task 1
Individual Research Report

Row 4: Understand and Analyze Perspective
The report earned a score of **4** in this row because it makes some general connections among perspectives from sources. On page 2, the response introduces Hall's perspective on how college athletics helps students to build connections, and on page 3 utilizes transitional phrasing ("Along with allowing social interactions to bloom…") to connect this idea to Dixon and Warner's perspective on sports bringing diverse people together. The paragraph that follows begins with transitional phrasing ("In addition … interpersonal skills can be used and developed") to link the perspectives in the previous paragraph to Griffith and Johnson's discussion of athletic participation as a means to cultivate interpersonal skills. Overall, the connections among perspectives remain general rather than nuanced because the report addresses so many subtopics.

Row 5: Apply Conventions (Attribution & Citation)
The report earned a score of **2** in this row because the References page is organized alphabetically, but several citations are missing essential elements (i.e., date for NCAA web article, journal volume/issue for Davis, journal title and volume/issue for Dixon, publication title for Griffith). These missing elements in several places impede evaluation of the work. A quotation from Campbell included in the introduction is not cited, but there is successful linking otherwise of citations to bibliographic references.

Row 6: Apply Conventions (Style & Grammar)
The report earned a score of **2** in this row because, although generally clear, it lapses at times into colloquial language that is not appropriate for an academic audience (e.g., "puts a lot on" and "on their backs" on pg. 1; "College is a huge life adjustment for college students" on pg. 4, "may take awhile … to figure out in the long run" and "come in handy" on pg. 5). In addition, imprecise word choice at times impedes communication. For example, on page 3: "Meaningful social interactions have decreased in the modern society run by technology." Sentences like this lack the clarity and complexity necessary for a higher score.

Performance Task 1
Individual Research Report

Sample: C
1 Understand and Analyze Context Score: 2
2 Understand and Analyze Argument Score: 2
3 Evaluate Sources and Evidence Score: 2
4 Understand and Analyze Perspective Score: 2
5 Apply Conventions (Attribution & Citation) Score: 1
6 Apply Conventions (Style & Grammar) Score: 1

Row 1: Understand and Analyze Context
The report earned a score of **2** for this row because, while it claims to address the futuristic implications of an acidifying ocean, it does so in an overly simplistic way. The Works Cited page references five sources that appear to be mostly governmental or nonprofit research, but the missing elements in each entry impede assessment of source quality and research context for the report. Two sources used to contextualize the issue are missing from the Works Cited (Jiang and NOAA) leaving the connection to the overall problem undefined. The sources are not used effectively to establish context.

Row 2: Understand and Analyze Argument
This report earned a score of **2** for this row because it consistently restates information found in the sources and fails to engage with the sources' arguments in a meaningful way. For example, on page 2 after the quote from NRDC and on page 3 after the quote from Cho, the response simply restates the same information from the quoted material.

Row 3: Evaluate Sources and Evidence
This report earned a score of **2** for this row because it contains simplistic and illogical discussions of credibility for its non-governmental sources. On the second page, statements like "CIEL is a trustable organization…" or "Statista is the go-to for governments…" are not grounded in any reasonable measures of credibility.

Row 4: Understand and Analyze Perspective
This report earned a score of **2** for this row because it identifies "corporations" and "individuals" as perspectives from source arguments, though they are merely general stakeholder points of view. Connections between these two perspectives are absent. This represents too few and oversimplified perspectives for the scope of the report.

Row 5: Apply Conventions (Attribution & Citation)
This report earned a score of **1** for this row because the Works Cited page does not demonstrate an organizational principle and there are essential elements (authors, publications, dates) missing from many citations. Most in-text citations do not link to the Works Cited page (Jiang, NOAA, CIEL, and Cho). Linking demonstrated through attributive phrases, especially to the EPA which has two citations which are not differentiated in response, do not clearly connect to citations. Overall, the report demonstrated unsuccessful deployment of bibliographic skills.

Performance Task 1
Individual Research Report

Row 6: Apply Conventions (Style & Grammar)

The report earned a score of **1** for this row because of the pervasive use of simplistic language inappropriate for an academic audience throughout the response. There are also several grammar flaws that interfere with communication; for example, on page 1: “I believe that if we don’t change anything about our actions I believe our oceans will be ruined”; and on page 2: “Most of this research is from the present, which leads there might be larger numbers in the future if things continue.”