Strategies 2 Q Responses

I have a quote for your quote collection:   
"To be uncertain is uncomfortable, but to be certain is ridiculous." - variously attributed to Voltaire or as a Chinese proverb

Can we be shown in class what previous students who passed the course achieved to get an idea on what we need to have done by the end.

I see many resources on the website that can help with learning biology. I was wondering if there were any resources for working towards independence. Possibly books/articles or other sources that have partly inspired this course.

I really do like keeping a schedule and understanding when things are due and what we are planning to do when. Keeping myself organized allows me to excel in doing the work and making sure I can give myself enough time to understand the work. As of right now from the class, I still find myself relatively confused on what needs to be done by a certain day/ what I should be focusing my time on outside of the classroom.

It’d be nice to have a cleaner version of the schedule if possible.

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| Result-conclusion |
| 1. The distinction between:   * What is true -- an immutable observation * What is merely plausible (perhaps less so tomorrow than today) -- an interpretation.   2. Finding actual observations within a research article, recognizing that most statements in a Results section are assertions, not observations. |
| My understanding ( more of law TBH) is that truth is a bigger existence entity. while we can't describe every aspect of it, we still are able to describe in a good way some agreed fundamentals. that been said, I believe that no assertion in any research is the whole true. and every conclusion it presents is under the effects of external and internal factors( such as how well the researcher is familiar with fundamentals of the subject or if s/he made the "correct" conclusion from what have been observed. |
| I'm starting to learn to spot the differences between items in the articles that are stated as being an observation and others being subjected to what the author seems to intend the meaning to be. |
| I feel fairly confident. I'm sure with more practice on my end, I'll be able to understand it better. |
| 1. With regards to what is true vs what is merely plausible I am able to distinguish the truths through the sentence structure and words that are used to present the facts, what becomes difficult is when reading some articles (more news than scientific) there is no distinction and reference to science and instead based upon quotes and lines pulled at will from the original research.   2. I am better able to find actual observations but the distinct line to chose whether or not they are assertions vs observations is still unclear and requires me to see and talk about more examples and articles in & out of class. |
| I understand the meaning of the words, but due to the class confusion on some of the answers there is no direct definition that can describe. If it is based solely on the prescriptive of the individual. |
| I believe I understand the difference between observations and assertions better than I did before our practice activities. |
| Much better after you emailed me. |
| I don't understand why statements in the results sections are assertions and not observations. |
| Overall, I would say that I am somewhat comfortable with these topics. |
| Think I got it. |
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| The statement above that, "most statements in a Results section are assertions, not observations", helped me to reflect on how my interpretation has been wrong in the past when encountering assertions. Generally it is easier to look at the charts and figures and understand that they are often observations or analysis of the observations. When results are stated as matters of fact it can sometimes cause me to forget to remain skeptical about how they attemped to establish them as such. |
| I've gotten a bit better at understanding the difference. The second part of results vs. conclusions activity helped clear up most of my confusion. |
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| My general understanding is that observations will usually concern methods of the experiment, facts about how it was performed, what was actually seen. While results are based on the data from the experiment after it is performed and sometimes are closer to conclusions. |
| I think I have a better understanding to what are observation and results and conclusions especially when it comes to research article after we went over it again in the 2nd class. |
| Makes sense. |

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| VitaminD |
| 1. Have you found the research article that serves as the basis of the newspaper article assigned to you for Thursday? 2. Can you make sufficient sense of the article to answer your question? 3. Have you met with your group (possibly at a distance) and produced a summary slide? |
| 1,2,3-Yes. E |
| Not finished yet but a collaborative Google doc has been created and shared Adi |
| Yes, yes, and yes Bethany |
| 1. I have found the research that correlates with the article by using the name of the main scientist in the article then doing a search for his publications that are concerned with Vitamin D.   2. I can make sufficient sense of the article.   3. As I answer this questionnaire my group has yet to meet to produce a summary slide, but a google drive is soon to come to make the slides needed for class. Fadi |
| yes, I found the research article it was difficult and time consuming because there wasn't the best documentation in the newspaper article and the article that i found was weirdly placed based upon the time that the study was published an the newsletter was written. Mine was also was based upon people that had already fallen once. Samuel Young |
| Yes, I have found the research article assigned to me, and I believe I can make sense of it. I have not yet met with my group to work on a summary slide. Jacob McGill |
| I sent off my information to a group member so that the slide can be made. Ruri |
| 1. Yes 2. Yes 3. Yes Kaivalya |
| 1.Yes 2. Yes 3. We created a google doc that we have been working on. Diana |
| 1. Yes  2. Somewhat, though certain parts are difficult to follow.  3. No...its been a particularly busy week, but we seemed to have a good idea of what to put on a slide from discussion last class. Ryan |
| All done Thomas |
| Yes I found the research article.   I can not make sufficient sense of the truth as far as vitamin D goes. I can make sense of the methods they used to test a group of patients who may or may not be representative enough.  We have not yet met to put the slide together. Alex |
| 1. I have found the research article and not the newspaper article this time.  2. Yes.  3. Kind of. We met with most of the members but have yet to hear from two others. Nikhitaa |
| 1) Yess 2) Yep 3) We did Darius |
| 1) Yes, the news article from C is based on the review of research, "Fall prevention with supplemental and active forms of vitamin D: a meta-analysis of randomised controlled trials."  2) This article was a review of 10 different research articles investigating the effect of vitamin D concentrations on falls (defined in a similar way in each article) over a three month period with participants 65 years of age or older 3) We did not meet so I found and read the seemingly conflicting article linked to D- "Monthly High-Dose Vitamin D Treatment for the Prevention of Functional Decline Danny  A Randomized Clinical Trial" This article was not a review but rather a year long experiment with participants 70 years of age or older with a prior fall. The primary purpose of the experiment was to asses lower extremity function with variation in vitamin D concentrations, a second objectives was assessing reported falls. Although these experiments may seem similar with contrasting results, the methods are very different. The biggest difference is that the first is a review and the other is a direct study. It's possible the review is more accurate in its conclusions because it took into account multiple studies, however, there is always the challenge of accuracy when comparing results of different studies. Also the direct study had slightly different parameters as mentioned above. |
| 1) I have found the research article related to my newspaper article what was assigned 2) Yes, I was able to answer the questions in regards to the article.  3) We did make our slides and went over it together over google docs. Aisha |
| 1. Yes 2. I can make sense of \*my\* article, although answering the question confidently requires understanding the other three articles as well. 3. Sort of. Jesse |
| Yes, I have met with my group and produced a summary slide Bharath |

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| Self-Assembly |
| * How the interaction between water molecules determines the interaction between (hydrophobic) plastic beads * How the interaction between water molecules determines the interaction between (hydrophilic) glass beads * How these properties can determine the shapes of complex structures, e.g. membranes and proteins   Do you have any concerns about these matters?> |
| Not at all, thanks. |
| None |
| I understand the concepts. |
| I have no concerns about these matters the slides are very clear in making their point and from the example that was shown I can better understand the self assembly model that is seen in biology (membranes & proteins). |
| the tutorial is pretty self subscribed. |
| No. |
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| No |
| No, I understand the hydrophobic and hydrophilic interactions can determine the shape of the structures discussed. |
| Think I got it. |
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| Yes I am concerned about these matters. I understand what generally occurs in self assembly. I also understand some of the physical chemistry behind the processes. I am concerned that the properties of self assembly known can not fully explain how shapes of proteins and some mebranes actually result under certain conditions. |
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| Nope |
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| Can you go over some main points you want us to emphasize on knowing in class? |
| No. |

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| Exam |
| Exam I |
| Is't of an issue if my VCU mentor is not currently in the states? |
| None |
| Nope. |
| The exam was rather straight forward I have no concerns about the exam. |
| yes will the best answer be posted! for the extra |
| No. |
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| No |
| No |
| Nope |
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| No. Well, maybe about the "Mary had a little lamb part"... |
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| The whole mentor thing and the topic is a little intimidating to me. |
| When will we receive feedback? I'd like to work on my research topic a little more so I can feel comfortable reaching out to a mentor |
| When do we usually get feedback back by? |
| Nothing I can't deal with. |

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| Strategies-up-to |
| SofL extent |
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| Seems to go through many topics and needs to be read some more to fully understand |
| D. |
| reread for a second time and on SQ7. |
| SQ.3 |
| I have finished reading through the notes. |
| Finished it. |
| I have reviewed the notes and looked at the questions in the notes, but have not formally answered them on a document |
| I read it on its entirety |
| Read trough section A. |
| I've read through the whole thing |
| SQ8 |
| Reading through part C |
| Skimmed through it |
| glass beads and plastic beads on a string self assemble |
| SQ5 in the notes. Still working on understanding them. |
| SQ7 |

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| Strategies |
| * How information passes from DNA through RNA to protein * The mechanism by which genes might determine the function of an organism * How amphipathic lipids can self-assemble into the sphere shown in Fig. 2B * The relationship between monomers and the four major types of biological polymers * How in general enzymes might determine the nature of a cell * Study Questions 1 through 8 |
| so far, I got where genes are( in a sense ) but I'm not sure what genes are! sure we do say that they are the cell method of controlling it self and the effect of the environment, but even then how does the sell deter main the first protein to make, stop other proteins synthesis better how cell define them self from the original zygote. |
| Activities exemplifying the core topics should be done |
| I was confused at the comparison of DNA to a self-folding box. I was confused at the word "spontaneous" because, initially, I thought that it meant that the DNA makes the 2D structure and then it somehow turns into a 3D structure. How does it do that? I dug around a bit and, what made the most sense to me, was that the DNA makes the proteins and then the proteins interact, causing the different functions, or the structure to turn "3D". I suppose my question is, am I on the right track? |
| Class time could be best spent to meet my needs by going through the study questions and answering the questions in a Socratic method. |
| I'm stumped about SQ3. I'm not sure where the question is coming form our how I'm supposed to look at it. When you add the colors to the design didn't change much, but it could have of been you where looking for the functional of the protein was changed. In which case would make some sense but I think that it would have to create a structure with it in order for it to show how the change would be necessary.  **SQ3. The last few slides of the tour seem to suggest that proteins are composed of multiple**  **types of subunits (which is true) and that the large number of types might contribute**  **to more complicated three-dimensional shapes (which is at best half true). If the**  **multitude of types of subunits are not necessary to direct the three dimensional**  **structure of proteins, then why might they exist?** |
| I do not currently have any other questions. |
| I am good to go. This was review of Cell Biology. |
| I understand the topics listed above, but going through the study questions briefly as a class would be helpful for me. |
| Although I am comfortable with most of the subjects listed above, I would like to learn more about the relationship between monomers and the four major types of biological polymers. |
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| What are the mechanisms of the types of membrane transport? |
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| Meet with other peers and try and get a concise understanding of the material. |
| Study questions would be most useful to review |
| Are the questions in the reading just for us to check over the reading in requiring the main points ; or would we go through them together as a class in class? |
| I need some time to get caught up with this class's demands.  No. |

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| Gene-up-to |
| WiaG extent |
| II.19 |
| I've skimmed through it but will we do the activities in the tutorials in class? |
| III.22 |
| III C |
| I have taken a look at the first biobike assignment |
| III.B |
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| I have not started it. |
| III.C |
| Havn't written anything down, but worked through the whole thing and thought about it. |
| IV |
| P1 |
| Going through part B |
| Finished |
| Finished |
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| Went over the first part |
| I.2 |

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| What-is-a-gene |
| Gene definition |
| a gene is a tool from the cell to control it self, it's composed from DNA bases with a specific arrangement to identify it self to other processed genes from the same cell. |
| By the AUG start codon (ATG in DNA) and an end codon. |
| I'm still fuzzy about how the cell knows where the gene begins. I'm aware of the start codon, but it doesn't start with ATG. I do know that cells recognize the promoter regions and that's typically how they figure it out, but that it's harder for us to because we still don't know so much about the process. I suppose we just use computer programs for accurate readings? |
| It is not simply based on the location of ATG but dependent on a number of factors that also stem from the upstream nucleotides where specific promoters and transcriptional factors can be attached. |
| I have yet to set my eyes on doing that but will hopefully try and get it done before the weekend. |
| A cell determines where a gene begins by looking for a promoter region that comes before the start codon ATG or a variation such as TTG. |
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| Same as previous questionnaire. Honestly, I have no idea how a cell will determine where a gene begins. I know that there are promoter regions on a gene for a DNA polymerase to bind and start replicating a gene. |
| Although the ATG sequence is correlated with the starting of a Gene Sequence, it cannot be assumed that all ATG sequences found are all the beginnings of a new gene. Therefore, there must be additional methods used to determine the true starting point of the gene sequence. |
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| The cell searches for a specific sequence of nucleotides that tells it to express that area of DNA. Protein encoding genes will, in a large majority of cases, begin with the nucleotide sequence "ATG," at least in the species that we looked at on CyanoBIKE. However, protein encoding genes are not the only types of genes. Other genes include RNA structures, and they may have varied nucleotide sequences which indicate the beginning of the gene to the cell. |
| Well, as the notes say, the textbook answer is that it begins at AUG. But genes have stretches of DNA that occur before ATG and seem to have important roles in regulating transcription. Maybe the gene starts before ATG. Does the movement of a car begin at the crankshaft or the bumper? |
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| A cell determines where a gene begins based on the start codon. |
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| It depends on the function of a gene in regards to where it starts. |
| A cell signal of some kind latches onto a region it matches.  What I don't understand is how it finds the region (probably happenstance) and how it ensures that it aligns with the codons properly, if at all. |

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| Gene-comment |
| WiaG |
| the coordinate system is still vague. I'm having difficulty connecting the example with how the cell uses such method to find a gene. |
| Go over the tutorials (portions) as a class and answer anything confusing |
| I'm comfortable with both topics. |
| A general review of the material to ensure that I have a full and coherent understanding (especially the PSSM) would be very helpful to me personally. |
| well if you go over peoples question in class then so it must be done |
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| I'm not sure since I have not completed this tutorial. |
| I am comfortable with the relationship between the gene and the genome although I would like there to be additional discussion during class about the coordinate system |
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| How does the coordinate system get numbered once all the noncoding DNA between the gene and the next gene upstream get numbered after after the termination sequence? |
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| Touch on this topic a little more. |
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| Explaining some good take away points we should know by the end of the reading. |
| I need some time to get caught up with this class's demands. |

For some reason, I received an error message and was unable to submit the questionnaire when I finished it so I am attaching it to this email.

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| Misc |
| Misc |
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| none |
| Not at the moment. I'll let you know if it changes. |
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| I hope the question for part three is specific enough, and if not then can you give me some feedback on how to make it more to your own liking. |
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| N/A |
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| None. |
| None. |
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| I'll reserve judgement for another few classes. |