

Peer Review of Mitchell Prost's Definition Assignment

Reviewer: Rodrigo Samayoa

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Term defined: Lysosome

Link to definition

Initial Impression

Good job on this definition, Mitchell. As someone who hasn't taken any biology class in over ten years, I can say I understood what a lysosome does. With a few exceptions, you used simple non-technical language to describe the function of the lysosome, which made it easy for me to understand. There were a couple instances, however, where you used technical terms which made me glaze over those sections.

In terms of grammar and structure, there were some sections where the sentence or paragraph could be simplified. There were also a couple of missing commas. Aside from these minor corrections, I don't think any major changes are needed to your definition.

Comments about the purpose and audience

You stated that the purpose of the definition was to be used to explain what a lysosome is to a friend with only high-school level biology.

Overall, you accomplished this, although there were a couple of sections where you used technical terms that someone without a science background may now understand. The first of these is in the parenthetical definition, where you use the term "organelle".

While it can be easy to know what it means because of the root of the word ("organ"), maybe you could try using a simpler term. An alternative definition without the use of "organelle" could be, "a small part of the cell that breaks down molecules." For the purpose of this definition, that should be enough as it is not being used in a technical context. Once you move on to the expanded definition you can start using the term "organelle" and use a parenthetical definition to define it.

The other section where I saw technical terms was in Figure 1, where you display a diagram of the cell with different parts. That said, I don't think the addition of those terms takes away from the understanding of the definition as they are not needed to understand what a lysosome is.

I did appreciate how you explained the terms "acid hydrolases" and "microtubule networks." These terms were more critical to defining the term and you did a good explaining what they meant in a very brief manner.

Suggested Changes

Since I do not have a biology background, I am not the person to determine how accurate your definition of the lysosome is, so I am focusing on grammar and sentence structure. As I already mentioned, you missed a couple of commas, so make sure to look out for those in the future as it does help break the sentences down to make them more understandable. Below are a couple of examples:

- “We started with a parenthetical definition, followed by a sentence definition and concluded with an expanded definition.”

In this sentence you have a list of sections of the document, so you need the comma between the list items. The comma before “and” is optional.

- “A cartoon diagram obtained from www.nursinghelpline24.com of a lysosome, including structural elements such as the lipid layer, membrane transport proteins, the membrane, and the hydrolytic enzyme mixture.”

The sentence needs a comma before “including” as it is a non-restrictive clause. In other words, the sentence makes sense if you remove everything past “... lysosome.”

The other suggestion I have is to simplify some of the sentences to improve readability. These are a few examples:

- **Original:** “Lysosomes are small organelles in cells that play a major role in removing unwanted molecules by degrading them. Chemicals called acid hydrolases are used as tools to break down these unwanted molecules in lysosomes.”

Alternative: “Lysosomes are small organelles in cells that play a major role in removing unwanted molecules by dissolving using chemicals called acid hydrolases.”

Comments: I suggest you combine both of those sentences as they come across as repetitive. The second sentence restates much of what is already included in the first sentence, so you can be more concise by not repeating these sections and combining it into one sentence. Check out Professor Patterson’s blog about [eliminating unnecessary](#) words for more on this.

- **Original:** “These organelles were discovered by Christian de Duve, who later went on to win the Nobel Prize for his discovery. The lysosome was discovered when de Duve showed that the level of acids increased when cells were exposed to harmful conditions such as decreased temperatures.”

Alternative: “These organelles were discovered by Christian de Duve, when he showed that the level of acids increased when cells were exposed to harmful conditions such as decreased temperatures. He later went on to win the Nobel Prize for his discovery.”

Comments: In the original form, both sentences start the same way and sound repetitive. By combining the introduction of de Duve with the story of how he discovered them, you can make it more concise. The fact that he won a Nobel Prize

feels less important, which is why I relegated it to the second sentence. If you want to keep the original sentence structure, I would just recommend you reword it in a less repetitive manner. So, the second sentence could start like this: "He discovered lysosomes when he..."

- **Original:** "Lysosomes receive molecules to dissolve and chemicals to dissolve those molecules through complex processes."

Alternative: "Lysosomes receive the molecules that have to be dissolved and the chemicals needed to dissolve the molecules through a complex process."

Comments: There is nothing 'wrong' about the original sentence, but I did find it difficult to read at first glance. The suggested alternative just makes it more readable by making it very clear that you are talking about two different elements going into the lysosomes, the molecules and the chemicals.

Final comments

Like I said at the top, I think you did a great job explaining this term for someone who doesn't know biology, like myself. The comments above are mostly about improving readability by simplifying the sentence structure or being more specific about the terms you use.

Finally, You did a good job in defining other technical terms needed to understand what a lysosome is, but if you want to take this a step forward, you can also add brief parenthetical or sentence definitions for other terms, like organelle or the terms listed in Figure 1.