## **User Interface Critique**

The two websites I chose to analyze for user interface critique are Quizlet and StudyBlue. Both websites are used by many educators and students to help understand class material. The representative task I chose for both websites was the ability for users to create note cards on the website. I found this task interesting because as someone who has used both websites, I never realized the details that go into making a note card; analyzing the task using Norman's principles made me understand the small differences in the websites can make a big difference for how the task plays out.

## **Affordance:**

In terms of affordance, both websites are pretty clear on making sure the user knows what each button is doing when hovering over certain parts of the page. For example, on both websites, when you hover over the empty note card, the mouse cursor turns into the typing cursor (I) to show it affords typing. Once clicked, the typing curse will blink to show that the user has typed a word out or is still typing (shown in pictures below).

Quizlet (typing blinking cursor gives user hint that they can type here)



StudyBlue (similar to Quizlet, blinking cursor affords typing)



However, one aspect where Quizlet was better than StudyBlue was the affordance of rearranging cards. As the screenshot below shows, Quizlet has a move cursor pop up when the user hovers over the card which affords to move the card. StudyBlue lacks this affordance even though you can still move the card.

Quizlet (move cursor affords user to shuffle around card)

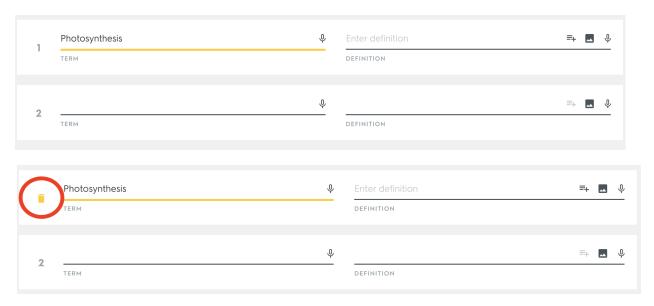
StudyBlue (cursor changes to hand pointer, no clear affordance that card can be moved around although it is implied)



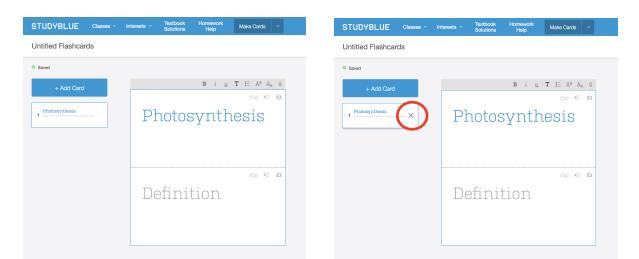
### **Visibility:**

Both websites for the most part have all their features visible to use. Both have a visible add card button that allows the user to continue making note cards. However, one feature that both failed to make obvious to the user is the ability to delete a note card. In the first pictures below, you can see that there is no visible delete button on either website. In order to delete a card, a user has to hover over a certain part of the card which itself is not explained anywhere throughout the page. For Quizlet, the user has to hover over the card for the "garbage can" delete button to display itself. As for StudyBlue, the user has to hover over the card they recently made for an "x" button to display itself on the right side of the card. They both applied the visibility principle in a similar way in terms of it being hidden until the user has hovered the mouse near its location.

### Quizlet (without a visible delete button and after it is visible)



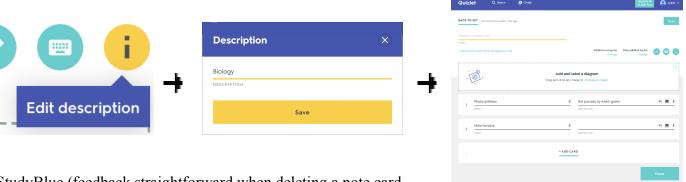
## StudyBlue (without a visible delete button and after it is visible)



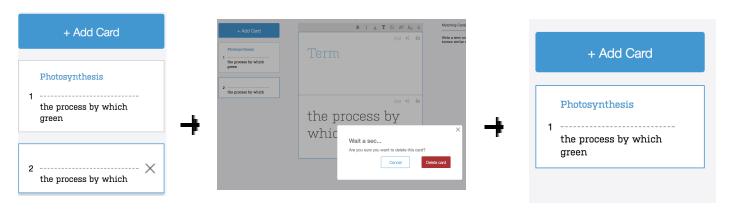
### Feedback:

The visual feedback from both websites is clear and evident for the user to see. On Quizlet, the user can move the cards around to reorder them and the page will show the movement of the card to let the user know that it is being rearranged. Similarly, StudyBlue also shows the movement of the cards when the user is reordering the note cards. Both websites do a great job in showing immediate effects of the user's actions whether it is deleting a card, reordering, typing a text, adding an image, etc. One critique for Quizlet is that the "i" button on the right side does not given any type of feedback to the user. When I clicked the button, it said to add description and I entered "biology". However, after I clicked done, nothing seemed to happen which left me confused as to what the button was supposed to display. As common practice, each button should give some sort of feedback whether it is visual or audio, and this button lacked both.

Quizlet ("i" button lacks feedback, no visual feedback on last image of "description")



StudyBlue (feedback straightforward when deleting a note card, second card removed in last pic)



Click "delete card" button

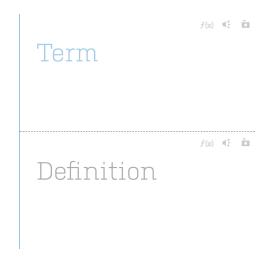
## **Conceptual Model:**

Conceptually, both websites are straightforward in letting the user know what the task at hand would be. The user know what to expect when typing out words in the note cards and even when given constraint errors, the user will know how to handle those errors. For example, on Quizlet, saving a set of one note card will give them an error saying that there must be at least two cards. Therefore, the user would simply have to make another card. The user also does not have to look up how to use the website and if they do, both websites provide a tutorial guide if that is the case. In terms of critiques, both models are very simple to understand and should be very easy to use so I would say both websites did well in this principle.

Quizlet (conceptual model - type a term and definition to create one note card)



StudyBlue (conceptual model - same as Quizlet but orientated vertically)

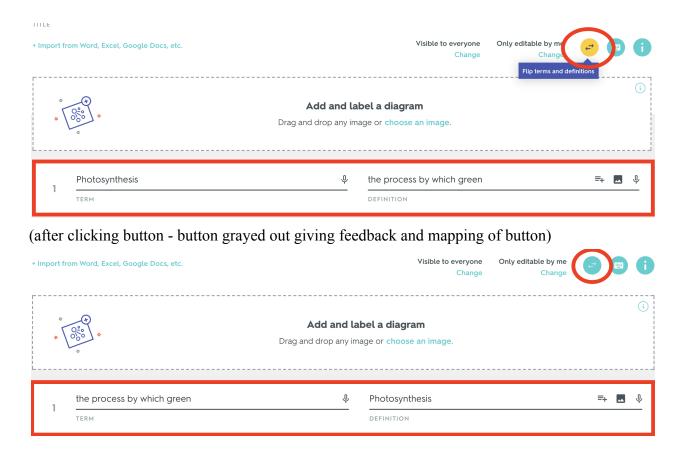


### **Mapping:**

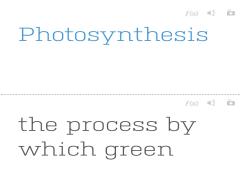
Quizlet and StudyBlue rely more on non-gesture mapping when being used on a web browser such as Google Chrome. However, users can still understand the relationship with the visible buttons and their functions. On Quizlet, hovering over buttons give the user a description of what the button should do. For example, the "flip terms" button displays a small text bubble that explains its function (switch term and definition). However, one bad example of mapping on Quizlet is the "i" button where it says "edit description". As mentioned in the feedback section, after typing a description, it still is not visible on the screen which makes it confusing for the user to understand in terms of the relationship of the button to the rest of the page. On StudyBlue, the mapping of buttons is intuitive (e.g. change text size by bolding, underlining

words, bullet points, etc.). The layout is also related to how a person would take notes on actual paper with the term on top and definition on the bottom.

Quizlet (relationship of button and function shown when hovered over e.g. hover over image button tells user description of button)

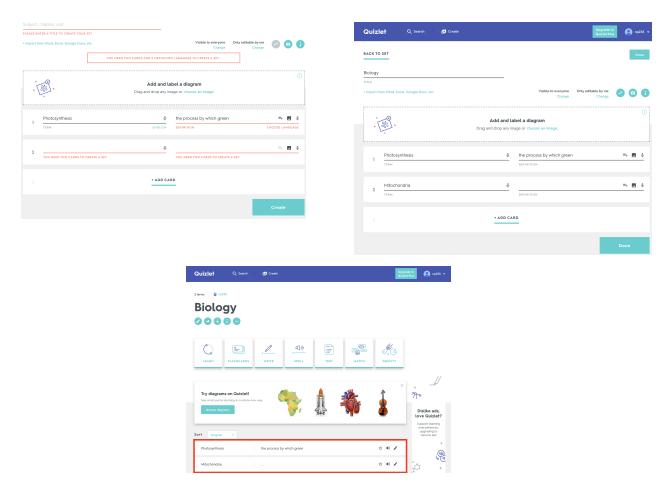


StudyBlue (dotted line separates term and definition similar to how a person would in actual notebook)

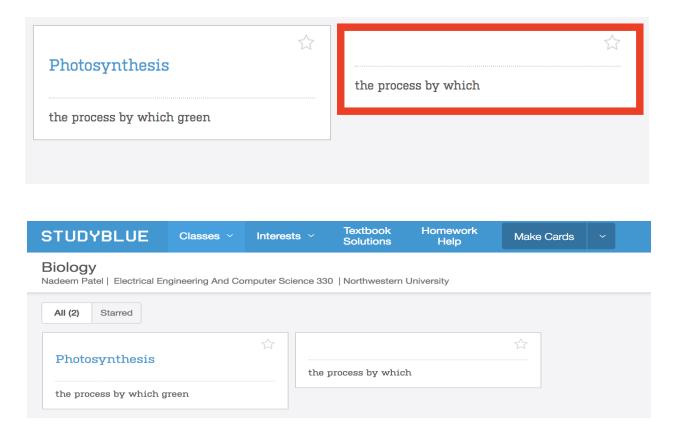


#### **Constraints:**

One constraint found on Quizlet is when clicking the create button when there is only one note card in the set. When clicking the create button, the interface tells the user "You Need Two Cards and A Definition Language To Create a Set" (picture on left). All the necessary parts of the page that need to be filled in are also highlighted with a red underline. One flaw in this constraint that I found was that you can submit a term without a definition or vice versa (picture on right). This should be an added constraint because users would then have half empty note cards. As the third picture shows, the note card was saved in the set when it should not.



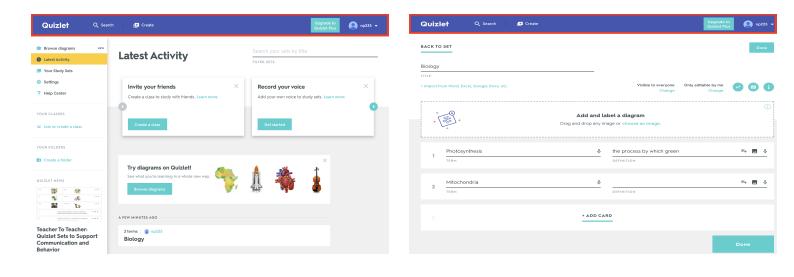
As for StudyBlue, there was not any constraint evident which can result in unorganization. On StudyBlue, there is no constraint on the number of note cards that must be created before the set can be created which is good because users can add and save as they go rather than being forced to create at least two cards from the start. However, similar to Quizlet, there is no constraint on leaving an empty definition or term when creating a note card (shown below). This can cause problems when a user shares their note cards with other users and parts of the note card is missing. Therefore, both should include a constraint where the note card is not valid until both term and definition are filled in.



# **Consistency:**

Both websites meet the standard for consistency in all three areas (internal, external, and metaphorical). The head bar the head bar at the top of the page is consistently the same throughout whether the user is on the homepage or when creating the note cards. Externally, both of the websites' logos at the top left lead back to the homepage when clicked regardless of what page you are currently on. Personally, I think that Quizlet fulfills the metaphor consistency better than StudyBlue for deleting note cards. The trash can symbol is universal to most users but the "x" that StudyBlue uses can be confusing to some users. They may think that the "x" only deletes what was written in the card instead of deleting the card entirely.

Quizlet (headbar consistent on every page)



# StudyBlue (consistent search bar on every page at the top)

