**Done via chat GPT 3.5**

Using the following [prompt series](https://chat.openai.com/share/2dc75349-640d-4c3d-9162-077f291cc041):

1. is there a simple form of thematic analysis that differentiate between positive and negative comments?
2. Is there a specific name for this in the academic literature?
3. can you perform a qualitative content analysis for me?
4. Please perform the analysis on the following data: (pasted from dataset)
5. Please finish the analysis you started
6. Please perform the same analysis based on this input data:
7. Please perform the same data analysis on the following dataset:

**For the VR Datasets**

**Step 1: Data Familiarization**

Reviewing the provided feedback, we can identify both positive and negative sentiments. Let's categorize them:

**Positive Comments:**

"Everything is great."

"Really good experience for the first timers."

"great activity. very beneficial."

"It was an enjoyable and informative task."

"Had a blast."

"very good experience."

**Negative Comments:**

"Not really."

"It wouldn't let me pick anything up or press the buttons."

"no."

"The software was a bit empty and only really had one functionality."

"The VR itself was good but the task around the VR was pointless."

"It was constantly, physically painful behind my eyes, I felt consistent nausea during the experience."

"The delay between my body and the displayed hands caused great discomfort."

"The survey was poorly formatted, used unclear phrasing, and was overall low quality."

"The experiment gave very little meaningful information on the real physical world."

"The delay in the VR slowly eroded my sense of proprioception, causing discomfort."

"please turn the earlier section of this feedback summary into a ranking of factors, as it was really annoying to answer a pile of questions that could have been asked much more succinctly."

"i do not think this should replace normal pre labs."

"The questions of this survey made it confusing to answer."

"This has not increased understanding further than doing the experiment further."

"If I want to do my lab online, I would have watched a YouTube video for free."

"Improve your survey."

**Step 2: Initial Coding**

Assign codes to each comment based on its overall sentiment:

Positive Comments: +

Negative Comments: -

**Step 3: Identify Themes**

Group similar positive comments together and identify common themes:

**Positive Themes:**

Overall positive experience

Enjoyable and informative task

Specific positive comments about the VR experience

Do the same for negative comments:

**Negative Themes:**

Technical issues with software and VR

Physical discomfort during the VR experience

Critique of survey format and content

Concerns about the educational value of the online lab

**Step 4: Sub-themes or Categories**

**Break down each major theme into sub-themes or categories:**

**Positive Themes:**

Overall positive experience

VR experience

Enjoyable and informative task

Specific positive feedback

Repeat for negative themes.

**Step 5: Coding the Data Again**

Assign codes to represent the identified themes and sub-themes.

**Step 6: Data Review**

Double-check the coding to ensure consistency and accuracy.

**Step 7: Analysis**

Explore the reasons behind positive and negative sentiments. Look for patterns, trends, or insights within each theme.

**Step 8: Presentation**

Summarize your findings, highlighting the main positive and negative themes. Use quotes or examples to illustrate each theme.

In this hypothetical analysis, I've outlined the initial steps. For a more in-depth analysis, you would need to dive deeper into the specific comments and potentially conduct further analysis based on the identified themes.

**Step 7: Analysis**

**Positive Themes:**

**Overall positive experience:**

Users generally found the task enjoyable, beneficial, and had a blast.

Specific positive comments were made about the VR experience.

Enjoyable and informative task:

Users appreciated the task as an informative and enjoyable experience.

Specific positive feedback:

Some users provided specific positive feedback, such as "very good experience."

**Negative Themes:**

Technical issues with software and VR:

Users faced issues with the software, including difficulty picking things up or pressing buttons.

Some experienced physical discomfort, consistent nausea, and a delay in VR interactions.

Critique of survey format and content:

Negative feedback included a request to improve the survey, citing poor formatting, unclear phrasing, and overall low quality.

Concerns about the educational value of the online lab:

Some users questioned the educational value of the online lab, suggesting it may not replace traditional labs effectively.

**Step 8: Presentation**

**Positive Findings:**

Users generally had a positive experience, particularly highlighting the enjoyment and benefits of the task.

Specific positive comments were made about the VR component.

Negative Findings:

Technical issues with the software and VR were reported, including discomfort and delays.

Critiques of the survey's format and content were mentioned.

Concerns were raised about the online lab's effectiveness in providing meaningful educational experiences.

Quotes or examples can be used to illustrate each theme and sub-theme, providing more context and depth to the analysis.

Remember, this is a simplified analysis for illustrative purposes. A comprehensive analysis would involve a more detailed examination of individual comments and potentially involve additional steps, such as inter-coder reliability checks if multiple analysts are involved.

For the lo-fi dataset:

**Step 1: Data Familiarization**

Reviewing the provided feedback, we can identify both positive and negative sentiments. Let's categorize them:

* **Positive Comments:**
  + "Everything is good and easy to understand."
  + "The activity is quite good."
  + "This is something I could have done in my own time with no change in outcome and efficiency in learning."
  + "The activity is good for visualizing the real event."
* **Negative Comments:**
  + "Doing prelabs in person isn't ideal, it takes too much time out of my week."
  + "I found the quiz the most frustrating aspect."
  + "It gives a useful insight into what to do in the lab but could have been done in my own time just as easily."
  + "The quiz was long."
  + "There was confusion in understanding q8,9. Explanation would have been preferred."
  + "Better labels for the beams and a better way to differentiate them."
  + "This may be useful for individuals who often forget/don't complete the home pre-labs, however, I believe this activity requires more time and effort from me than the previous method."
  + "The language is quite exact and specific, which is good practice I suppose, but harder to understand what it's actually asking for at a quick glance."

**Step 2: Initial Coding**

Assign codes to each comment based on its overall sentiment:

* Positive Comments: +
* Negative Comments: -

**Step 3: Identify Themes**

Group similar positive comments together and identify common themes:

* **Positive Themes:**
  + Overall positive experience with the activity.
  + Positive feedback on the visualization aspect.

Do the same for negative comments:

* **Negative Themes:**
  + Time constraints and inconvenience of in-person prelabs.
  + Frustration with the quiz.
  + Desire for more flexibility in completing the prelab.
  + Issues with quiz length and confusion in understanding specific questions.
  + Suggestions for improvement, such as better labels for beams.

**Step 4: Sub-themes or Categories**

Break down each major theme into sub-themes or categories:

* **Positive Themes:**
  + Overall positive experience with the activity
    - Visualization aspect
  + Positive feedback on the activity's effectiveness

Repeat for negative themes.

**Step 5: Coding the Data Again**

Assign codes to represent the identified themes and sub-themes.

**Step 6: Data Review**

Double-check the coding to ensure consistency and accuracy.

**Step 7: Analysis**

***Positive Themes:***

* Overall positive experience with the activity:
  + Users generally found the activity good, easy to understand, and effective for visualizing real events.
* Positive feedback on the visualization aspect:
  + Specific positive comments were made about the visualization aspect of the activity.

***Negative Themes:***

* Time constraints and inconvenience of in-person prelabs:
  + Users expressed that in-person prelabs take too much time out of their week and suggested doing them at home for more flexibility.
* Frustration with the quiz:
  + Some users found the quiz frustrating, especially in terms of length and confusion in understanding specific questions.
* Desire for more flexibility in completing the prelab:
  + Users suggested that the prelab could be done at home, offering more flexibility.
* Issues with quiz length and confusion in understanding specific questions:
  + Negative feedback included concerns about the length of the quiz and confusion in understanding certain questions.
* Suggestions for improvement, such as better labels for beams:
  + Users provided specific suggestions for improvement, such as better labels for beams and a clearer differentiation.

**Step 8: Presentation**

***Positive Findings:***

* Users generally had a positive experience with the activity, particularly appreciating its visualization aspect.
* Positive feedback indicated that the activity is good for understanding real events.

***Negative Findings:***

* Users expressed concerns about the time constraints and inconvenience of in-person prelabs.
* Frustration with the quiz, desire for more flexibility, and suggestions for improvement were also noted.

Quotes or examples can be used to illustrate each theme and sub-theme, providing more context and depth to the analysis.

This analysis provides a basic overview of the sentiments and themes present in the feedback. A more detailed examination of individual comments and potential additional steps may be necessary for a comprehensive analysis.

**ilabs data:**

**Step 1: Data Familiarization**

Reviewing the provided feedback, we can identify both positive and negative sentiments. Let's categorize them:

* **Positive Comments:**
  + "It was fun."
  + "It was fun and more engaging. Made me better prepared for the upcoming lab."
  + "This activity was very good and effective for a student like me."
  + "that activity was really interesting, I loved it."
  + "went well, not very demanding."
  + "Easier to use if I had a mouse and a bigger screen."
  + "This is very effective."
  + "Better than videos."
  + "Good and clear."
  + "Very similar to a normal pre-lab, could be completed at home."
* **Negative Comments:**
  + "Soft ware layout could do with some work but was good otherwise."
  + "I think the user interface could be improved."
  + "The typeface used is very strange and doesn't fit the mood of the experiment."
  + "The list of objects should be ordered into a proper list with one object on each line."
  + "The choice of colors was odd."
  + "There was one toggle switch that didn't seem to do anything."
  + "Maybe some information on the quiz with regards to the number of significant figures required in the answer."
  + "I thought that an animation of the material bending instead of still photos would have been more interactive."
  + "It was more difficult to use on a laptop, a mouse would have helped greatly."
  + "It's not really engaging."

**Step 2: Initial Coding**

Assign codes to each comment based on its overall sentiment:

* Positive Comments: +
* Negative Comments: -

**Step 3: Identify Themes**

Group similar positive comments together and identify common themes:

* **Positive Themes:**
  + Enjoyment and engagement with the activity.
  + Effectiveness for better preparation.
  + Favorable comparison to other learning methods.
  + Ease of use with certain equipment (mouse and larger screen).
  + Clarity and similarity to a normal pre-lab.

Do the same for negative comments:

* **Negative Themes:**
  + Software layout needs improvement.
  + User interface issues.
  + Concerns about typography and color choices.
  + Issues with the list format and toggle switch.
  + Specific suggestions for improvement.
  + Difficulty of use on a laptop.

**Step 4: Sub-themes or Categories**

**Break down each major theme into sub-themes or categories:**

* **Positive Themes:**
  + Enjoyment and engagement
    - Effectiveness for preparation
    - Favorable comparison
  + Ease of use with specific equipment
  + Clarity and similarity to a normal pre-lab

Repeat for negative themes.

**Step 5: Coding the Data Again**

Assign codes to represent the identified themes and sub-themes.

**Step 6: Data Review**

Double-check the coding to ensure consistency and accuracy.

**Step 7: Analysis**

***Positive Themes:***

* Enjoyment and engagement with the activity:
  + Users found the activity fun, interesting, and engaging.
  + It made some students better prepared for the upcoming lab.
* Effectiveness for better preparation:
  + Positive feedback indicated that the activity was effective for preparation.
* Favorable comparison to other learning methods:
  + Users expressed that the activity was better than videos and similar to a normal pre-lab.
* Ease of use with specific equipment:
  + Some users noted that the activity was easier to use with a mouse and a larger screen.
* Clarity and similarity to a normal pre-lab:
  + Positive comments highlighted the clarity and similarity to a normal pre-lab.

***Negative Themes:***

* Software layout needs improvement:
  + Users mentioned that the software layout could be improved.
* User interface issues:
  + Specific issues included the typeface not fitting the mood, odd color choices, and a toggle switch not functioning as expected.
* Concerns about typography and color choices:
  + Users had concerns about the typeface and color choices.
* Issues with the list format and toggle switch:
  + Users noted difficulties with the list format and mentioned a toggle switch that didn't seem to work.
* Specific suggestions for improvement:
  + Users provided specific suggestions for improvement, such as ordering the list properly.
* Difficulty of use on a laptop:
  + Some users found the activity more difficult to use on a laptop and **suggested that a mouse would have been helpful.**

**Step 8: Presentation**

***Positive Findings:***

* Users generally enjoyed and engaged with the activity.
* Positive feedback indicated the effectiveness of the activity for better preparation.
* Users favored the activity over other learning methods.
* Ease of use with specific equipment and the clarity of the activity were highlighted.

***Negative Findings:***

* Users identified issues with the software layout and user interface.
* Concerns were raised about typography and color choices.
* Specific suggestions for improvement were provided.
* Some users found the activity difficult to use on a laptop.

Quotes or examples can be used to illustrate each theme and sub-theme, providing more context and depth to the analysis.

This analysis provides a basic overview of the sentiments and themes present in the feedback. A more detailed examination of individual comments and potential additional steps may be necessary for a comprehensive analysis.