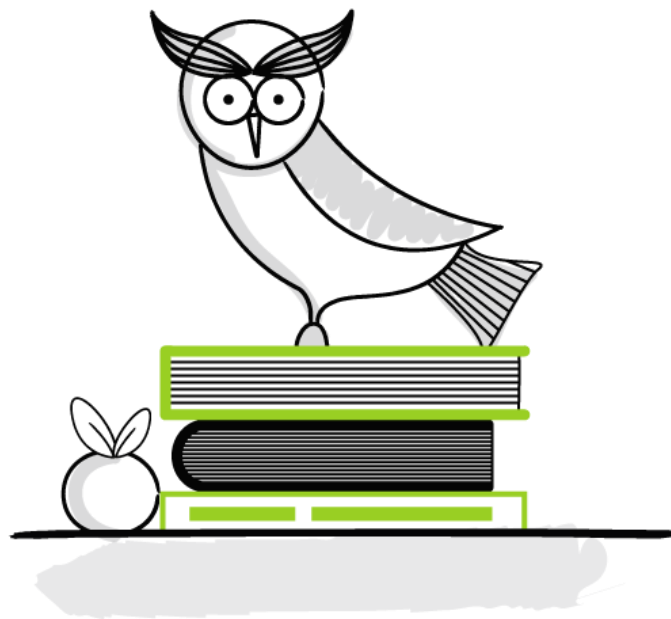


# Should our app use light or dark mode?

## *Literature Study*



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## Version

Version	Date	Author(s)	Amendments	Status
1.0	14-11-2023	Luc Swinkels	First draft	Draft
1.1	20-11-2023	Luc Swinkels	First definitive version	Definitive



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## 1. Context

The goal of this document is to support the following research sub-question:

*“How can we create a unified corporate identity to ensure a better user experience?”*

To do this, I have to figure out the differences between light and dark mode and figure out which style/theme works best for this app, which we could then use as a baseline for the designs of our prototype.

## 2. Method

### 2.1 Literature study

To answer this research question, I will be using the literature study CMD method. Since I am already experienced in the field of UX/UI design, I can combine my own knowledge with existing literature to come to valid conclusions.



### 3. Results

To be able to make a decision on which mode would be best for our app, I wanted to look at articles that showcased advantages and disadvantages of both options. Some key advantages and disadvantages are as follows (Bokka, 2023):

#### Dark Mode

Advantages	Disadvantages
May use less energy than light mode allowing your phone battery to last longer.	The dark mode is not always suitable for eye strain, as text is sometimes washed out against a dark background.
It can potentially lessen eye strain in low-light conditions.	Less valuable if you are surrounded by bright ambient light
Suitable for low-light conditions, especially when you don't want your phone to be a beacon of light, e.g., in bed or a cinema.	
Preferably to light mode before you sleep because it emits less 'blue light.'	

#### Light Mode

Advantages	Disadvantages
Many web pages, apps, and interfaces will have been optimized for the standard light mode.	May drain your battery faster than dark mode, depending on your screen.
If you have standard/normal vision, light visual performance is usually better with light mode.	More likely to keep you awake if used before sleep because of the amount of 'blue light' emitted.

These pros and cons are also confirmed by another article from the Nielsen Norman group, a respected design and user experience research (Budiu, 2023), as they also mention that light mode tends to be better for visual performance.

Since our app is generally used during the day as PE teachers don't generally teach in the evening, visual performance is more important to our app than eye strain. While faster battery drain could be a concern, our users will generally be using their smartwatch more often than the mobile app, which means that the mobile app won't drain much battery as it isn't constantly being used.



## 4. Conclusion

In conclusion, I have chosen to opt for light mode for our app based on a few key points:

- The app will not be used for long hours at a time, therefore the eye strain and battery drain will be minimal.
- The app will only be used during the day, therefore light mode will be a lot more visible and easier to use during the normal usage times.
- Light mode comes off as more professional and is has better visual performance. Since our demographic is young-adult and adult teachers, I think we should aim for a professional experience.

Since our stakeholder is a fan of dark mode and the app could be used by teachers checking in on statistics at home, we should still aim to have a theme toggle setting so we can provide our users with a choice, however our designs should be primarily based on light mode.



## 5. Literature

1. Bokka, A. (2023, March 2). Dark Mode vs. Light Mode: Which is Better? - Radiant Digital. *Radiant Digital - The Official Website of Radiant Digital*. <https://www.radiant.digital/dark-mode-vs-light-mode-which-is-better/>
2. Budiu, R. (2023, February 8). *Dark Mode vs. Light Mode: Which Is Better?* Nielsen Norman Group. <https://www.nngroup.com/articles/dark-mode/>