Sunsafe Adventures

The Game:
This is a pretty standard 2D platformer game designed to educate and promote sun safety by encouraging the audience to stay in the shade and wear sunscreen. The goal is to beat each level before the SPF value reaches 0. It starts at 20 and decreases by 1 every quarter second. Umbrellas provide shade such that the SPF value will not decrease, water droplets and rays will wipe away 10 SPF, while coolers and sand castles constitute standard obstacles. The victory condition for each is reaching the car at the end which will activate the next scene, and the victory condition for the game is beating the final level, which has a car that prompts a screen showing that the player has avoided contracting melanoma. The loss condition occurs when the player's SPF reaches 0, prompting the player to restart the game (from level 1, not the tutorial).

Throughout the game the player is presented with a series of micro-choices. Collecting sunscreen will increase their SPF and give them more time to make it to the end of the level, but sometimes the sunscreen is out of the way, requiring the player to spend precious time collecting it while risking colliding with an enemy. We tried to avoid failure states by having the player start in the shade, giving them time to adjust to their 2D surroundings. Also, we added an image to the tutorial that tells the player what keys to use to move around. Hopefully, these factors will keep the player from losing the game without knowing why.

Target Audience:
The target audience is around 10-15 year olds – a population that will soon become independent and has the mental capacity to understand health dangers. This age group will hopefully be entertained by the somewhat repetitive, level-based nature of the game. They'll also have the prerequisite knowledge to understand the background information regarding sun damage causing skin cancer. Ideally, later levels will make the game entertaining for a wider, general audience, but the primary, serious goal of the game is to educate this demographic on skin safety.

Serious Purpose:
Within Denmark and the world as a whole, Melanoma has been a very serious issue, and lack of awareness is part of the problem. Ths project was inspired by a 2017 video known as "Help a Dane" which emphasized the lack of awareness of sunburn and Melanoma in Danes. The purpose of the game is to demonstrate the importance of sunscreen use when in areas with high UV indexes. The game achieves this goal through illustrating the use of sunscreen as protective against the sun yet also temporary. It enforces the idea of needing to reapply sunscreen after being in water and additionally how sunscreen will wear off/be sweat off over time. The termination condition, where the player is redirected to a screen, contains a noteworthy statistic highlighting the prevalence of skin cancer. This logos appeal attempts to convince the player that this is a real issue. Furthermore, the abrupt shift to that screen, and the dark background, attempts to show the severity of the condition.

Use Case:
The serious game we have created can have a valuable use case in promoting sun safety. There are several contexts where this game would be relevant, generally in educational settings. This game could be

incorporated into health education curricula in middle schools or even younger grade levels. Teachers can use it as a fun and interactive way to teach students about sun safety. Summer camps, community events focused on health and wellness, and dermatology clinics are also examples of places where this game could be utilized.