

# Problem Domain

The current diagnostic tests for synaesthesia focus primarily on the grapheme-color form, which examines the association between colors and shapes or letters. However, there are limited tests that concentrate on the translation of sound to color or shape.

The client is seeking assistance to develop an online tool that performs two-dimensional color consistency tests, incorporating music as a stimulus. The tool will allow for more diagnoses of synaesthesia online, instead of relying on expensive fMRI machines. Moreover, the tool can provide individuals with synaesthesia an avenue to express their unique experiences.

To design the tool, the project team will need to determine the domain of sounds and colors/shapes used in the tests. One approach could involve playing similar notes at different times during the test and assessing if the user responds similarly to a previous answer. Consistent responses would indicate a reliable domain of sounds and colors/shapes for the tests. Additionally, the project team will need to establish the optimal number of questions, time limit restrictions on sound played, and other parameters to ensure the effectiveness of the tests.