



Teaching through familiarity: Design Concepts in “Tracey and the Magic Brush”

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In *Tracey and the Magic Brush*, my 2D puzzle platformer, the main core mechanic is using the cursor to paint lines on the screen which can be used to platform on with *Tracey Lynes* the player character. There are a variety of colors that the player can use to draw with, each having its own elemental characteristics. For example, the blue color is icy, causing the player to slip and slide, while also allowing the player to build momentum and reach faster speeds than normal. Another example is the purple color, which is a sticky glue, which disables jumping when stood on, but enables wall adhesion and jumping off of the sides of these purple surfaces. But how would the player know all of that from just seeing the color of the paint? An argument could be made for the icy blue, but the purple is a different story.



When designing these mechanics, it is important to consider the player's first interaction with them. If they were given the ability to draw with these colors without knowing what they do, they might not grasp their characteristics or become confused as to their use cases. In the second level, themed around the blue color, instead of being given the ability to draw blue lines right away, the player is slowly introduced to the mechanic through patches of ice on the mountain path. These simpler platforming puzzles give the player time to experiment with the new mechanic and understand what it does, without adding the complexity of drawing the lines themselves.



After some more sections that involve painting with the standard black color while walking on these stationary blue surfaces, the player is then given the ability to draw their own icy blue lines. The player does not need to be told what the color does or its use cases, since they have already been shown through the previous sections.

The final section of the level requires lots of sustained speed to avoid the avalanche of icicles that fall down from the ceiling. This is a situation that is different enough from the previous sections that it tests the player's understanding of the blue color along with their general platforming skills.

This example follows the general design philosophy of most of the mechanics in *Tracey and the Magic Brush*. First, the player is introduced to a concept in isolation,

allowing them to figure out what it does. Next, the player is shown uses for it through platforming sections. Then, the player is given greater control over the mechanic, allowing more dynamic gameplay through choice and precision. Finally, the player is faced with more open-ended situations not shown before, and they have to use what they have learned along with their intuition to overcome the challenge presented.

To go through another example, the next level introduces the purple color, first by showing the player that they cannot jump vertically from it, but then showing that they can wall-jump off of it. Later, the player is given the ability to paint with the purple color, hoping they remember that if painted horizontally it cannot be jumped from, instead

needing to paint their own vertical brushstrokes and use wall jumps to gain vertical height. The player is introduced to puzzles with one sided wall jumps, which was not shown before, but players can easily figure out from what they went through in previous rooms.

Lastly, the player is tested with the challenge of an evil clone NPC who

follows the player's every move on a delay, adding a sense of urgency and necessitating quicker use of the tricky purple color.

This design philosophy can make learning your game's concepts more streamlined, less forced, and more intuitive.

