**The Chef's Virtual Guide**

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Cooking is an age-old skill that improves health and wellness and can benefit our daily lives. It’s no secret that knowing how to cook may lead to a healthier lifestyle in general, but cooking has been found to be helpful in various aspects of life including emotional wellbeing, obesity, and even academic trajectories. Our project aims to bring awareness to the importance of cooking as a skill and help the user practice and refine their cooking skills.

Having the ability to cook, for any age range, can benefit an individual’s emotional wellbeing. Confidence in any aspect of life is beneficial, and people with cooking skills report higher confidence levels on average in their cooking attitudes and diet quality (Lavelle). In addition to general confidence, learning to cook is helpful in the treatment of eating disorders such as anorexia or bulimia nervosa. For victims of depression and anxiety, cooking can be used as a tool to regulate behavior and minimize stress (Stewart). Cooking is a relaxing, healthy skill that people of any emotional condition can benefit from doing.

Food and cooking knowledge are useful in physical aspects of life because chefs are more likely to use healthy ingredients. A healthy diet is a crucial part of life: properly nourishing the body generates the energy we need to live. Making food is a surefire way to keep track of the quantity, quality, and nutritional value of meals. While beneficial in general, cooking clean can be both the prevention and the solution for obesity and diabetes (Lavelle).

While not proven, data suggests learning to cook at a young age may improve academic trajectory. Adolescents and Children who learn cooking have higher math and reading scores than those who have not learned these crucial skills. Cooking helps organize tasks into steps in a goal-oriented way and learning to cook can help learning in other categories (Lavelle)!

With these ideas in mind, we wanted to create a VR cooking simulation that allowed a person to learn how to cook or to refine their skills in a realistic kitchen environment. Our main inspiration was the *Cooking Mama* video game series, as it provided a good balance of following realistic cooking recipes and “game-ifying” cooking. However, none of the *Cooking Mama* games require actual travel from the user and presents each step in the recipe in an isolated environment, such as replacing the bowl from the previous step with a pan needed for the current step. Our cooking simulation puts the user into an actual kitchen, complete with a sink, stove, island table, and all the kitchen utensils and ingredients needed to complete the specific recipe for the level.

The user is required to move around like they would in a real-life kitchen to whisk eggs, add seasoning to their omelet, cook the omelet, and serve it, as seen in our omelet level. This allows the user to achieve a sense of presence in the virtual space, helping them convince themselves to focus on learning how to cook, and not necessarily learn how to perfect the level and achieve a high score. We’ve also included two other levels of increasing difficulty: chicken parmesan and cake. These levels have more steps for the recipe and require the user to really focus on completing each step of the recipe correctly. However, if a user messes up a step, there’s no mess or wasted food; all they have lost is some time in VR. In addition, there are no safety concerns besides the ones for all VR games. A user cannot burn themselves on the stove or cut their hand with a knife.

We believe our simulation is a useful learning tool for those wanting to learn how to cook or to improve their skills. In addition, we hope this simulation can help those with mental illnesses by providing a safe platform to learn and fail and then learn and succeed without risk, or by simply providing a relaxing experience. This simulation can help others by making them think about they put in their bodies and whether the food they are eating is healthy. By virtualizing the kitchen, we can provide all the benefits of cooking in real life without any of the potential dangers and stress that cooking sometimes has.

Works Cited

Lavelle, Fiona, et al. “Learning Cooking Skills at Different Ages: a Cross-Sectional Study.” *The International Journal of Behavioral Nutrition and Physical Activity*, BioMed Central, 14 Nov. 2016, www.ncbi.nlm.nih.gov/pmc/articles/PMC5109777/.

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