Background Investigation

Operant conditioning was proposed by B.F. Skinner, and his concept has made significant contributions to the common person's understanding of behavioral psychology. Today, the idea of operant conditioning is increasingly being integrated into our daily lives. In the field of interaction design, we can also try applying this concept to our product designs. This can help enhance user stickiness and retention, allowing users to spend more time on our apps. Indirectly, this increases the likelihood of more users using the "Social" function (the more users we retain, the more interactions occur).

Firstly, we utilized the concept of Positive Reinforcement from operant conditioning. In positive reinforcement, rewards strengthen a response or behavior, leading to the repetition of desired behaviors (Fioravante et al., 2008). For instance, in our app, when our users consistently check in, they earn pet food. Every 10 bowls of food help level up their pet. The continuous receipt of pet food and level-ups serve as our reward to users. This ongoing reward system encourages our users to open FitPetPal daily. Additionally, the pet feature adds a unique fun element to our app, distinguishing it from other fitness apps or fitness-social themed applications on the market.

Secondly, we also incorporated the concept of Negative Reinforcement from operant conditioning. In negative reinforcement, an action ends an unpleasant situation or condition (Fioravante et al., 2008). For example, in our app, the pet has a health level setting. If a user doesn't log in for a day, the pet enters a state of hunger. If the user doesn't log in for two consecutive days, the pet falls ill from extreme hunger. If the user doesn't log in for five consecutive days, the pet dies due to malnutrition. This intensifies the user's negative reinforcement behavior. To prevent their pet from starving or dying, users are inclined to use FitPetPal daily. However, we also provide users with ample error tolerance (pets can be adopted again, but only three chances are given in a year), preventing them from giving up on their fitness and social endeavors due to unintended incidents that might cause them not to log in, such as their phone being broken and sent for repair.

Reference List

Fioravante, D., Antzoulatos, E. G., & Byrne, J. H. (2008). Sensitization and habituation: Invertebrate. *Learning and Memory: A Comprehensive Reference*, 31–51. https://doi.org/10.1016/b978-012370509-9.00005-x