Reinforcement and Punishment

|  |  |  |
| --- | --- | --- |
|  | Reinforcement | Punishment |
| Positive | Something is *added* to *increase* the likelihood of a behavior. | Something is *added* to *decrease* the likelihood of a behavior. |
| Negative | Something is *removed* to *increase* the likelihood of a behavior. | Something is *removed* to *decrease* the likelihood of a behavior |

Table 1 from <https://pressbooks.online.ucf.edu/lumenpsychology/chapter/operant-conditioning/>

Operant Conditioning

* Definition from wsu.edu – “Operant conditioning is a type of associative learning that focuses on consequences that follow a response that we make and whether it makes a behavior more or less likely to occur in the future.”
* Sources
  + <https://opentext.wsu.edu/principles-of-learning-and-behavior/chapter/module-6-operant-conditioning/#6.2>

Affordances

* Affordances are the action possibilities enabled by an interface or environment, perceivable by a user
* We should consider this when designing the user interface – indicate warnings on options that go against the user’s goals, such as ignoring their daily app limit
* Sources
  + <https://medium.com/theymakedesign/what-is-affordance-in-ux-7429d8646cf8>
  + <https://oecs.mit.edu/pub/984ungzu/release/1>

Streaks

* Users tend to be more motivated when they have a streak to pursue
* People feel they have more commitment to a goal if they are pursuing a streak.
* Dangers
  + A broken streak can significantly demotivate user – they not only failed at their goal but they also failed to keep their streak alive
* Sources
  + <https://phys.org/news/2024-03-streaks.html>

Ideas

* Streaks
  + Keep track of how many days a user stays within their defined limit
  + Streak is broken if user goes over their daily limit in an app or if they increase their app time limit, but continues if limit is decreased (less time per day)
  + Could keep track of overall streak, streaks for app groups, or streaks just for each individual app
  + Streak milestones – maybe when you hit a milestone, you can get token to redeem additional time without breaking a streak
  + Positive reinforcement – staying under limit increases streak
  + Negative punishment – going over limit breaks streak (consider a soft break before a complete reset)
* Notifications for “you’ve spent five minutes in \_\_\_ app, consider taking a break”
* Positive punishment – add a screen before opening an app
  + Mandatory delay before allowing user to open app (say 15-20 seconds)
  + Tell user how much time they’ve already spent
  + Let user say how long they want to use the app for in that session