1. While using DQN for RL (Deep Learning for RL), there are some issues that are specific to RL that need to be taken care of that are not faced in normal supervised learning, such as correlation between sequential states.   
     
   Also, in supervised learning, the label corresponding to the same feature vector doesn’t change whereas in RL based DQN, it is variable, i.e. both the input and the target change constantly during the process and make training unstable.
2. Need to look at different available environments in openai gym.
3. Also need to look at different course projects for different big college students on drl and if possible take queues from them.

Links:

1. <https://medium.com/@jonathan_hui/rl-dqn-deep-q-network-e207751f7ae4>
2. <https://www.youtube.com/watch?v=0bt0SjbS3xc&list=PLZbbT5o_s2xoWNVdDudn51XM8lOuZ_Njv&index=13> : DQN explanation series - good start after understanding of tabular Q learning
3. <https://towardsdatascience.com/radial-basis-functions-neural-networks-all-we-need-to-know-9a88cc053448> : Radial basis functions (for function approximation)
4. <https://spinningup.openai.com/en/latest/spinningup/keypapers.html> : Important papers related to DRL
5. <https://docs.google.com/spreadsheets/d/1iOwmt598iWcU5wuiEXmdkJHDMPeck826JhxdyZvFHvE/edit#gid=0> : List of resources for DRL
6. <https://stackoverflow.com/questions/54237327/why-is-a-target-network-required> : Good explanation for the need of a target network on accounts of instability
7. <http://videolectures.net/DLRLsummerschool2018_toronto/> : Lecture Series for DRL from University of Toronto
8. <https://cs.stanford.edu/people/karpathy/reinforcejs/gridworld_td.html> : ReinforceJS, developed by Andrej Karpathy
9. <http://web.stanford.edu/class/cs234/past_projects/2017/2017_Asawa_Elamri_Pan_Transfer_Learning_Paper.pdf> : Using Transfer Learning Between Games to Improve Deep Reinforcement Learning Performance and Stability
10. <http://rail.eecs.berkeley.edu/deeprlcourse-fa17/index.html#lecture-videos> : UCB course page ( has lecture video link along with all assignments and reddit for doubt resolution )
11. <https://openai.com/blog/requests-for-research-2/> : **Link for requests for research 2.0. from openai.**

Other general topics:

1. Limitations of Deep Learning
2. Importance of function approximation in General Artificial Intelligence