**Reinforcement Learning for Mapping Instructions to Actions**

In this paper they proposed a model that uses reinforcement learning to map instructions to executable actions. The instructions in this model are represented by natural language. In this work, initially reward function is defined. This function defined the quality of the executed actions. In reinforcement learning model, the training phase constructs a set of actions for a set of instruction list then waits for the rewarding points. They’ve used an algorithm to estimate the rewarding function parameters. They’ve used two domains to adapt their model. (Windows troubleshoot guide and game tutorials). [1]

**Inputs:** given document d, consisting of sentences (u1…ul) where ui is a sequence of words

**Goal**: map d to sequence of actions **a** = (a0…an-1)

**Datasets:** 128 Document (Windows Troubleshoot guide) 70 Training 18 Development, 40 Test

50 (Puzzle Tutorial) 40 Training 10 Test

**Results:** Fully Supervised Approach gives best performance

Correct actions - 0.75 in Windows Troubleshoot

* 0.63 in Game Puzzle

[1] S. Branavan, H. Chen, L. S. Zettlemoyer, and R. Barzilay, “Reinforcement learning for mapping instructions to actions,” *Proc. Jt. Conf. 47th Annu. Meet. ACL 4th Int. Jt. Conf. Nat. Lang. Process. AFNLP Vol. 1-Volume 1*, no. August, pp. 82–90, 2009.