



The above chart shows the probability  $P$  that the given context will be classified as either **dog** or **cat** by a naïve Bayes classifier. The user has taught the classifier, that the context has to be classified as **dog** over the first 20 steps. The learning curve of forgetful and not-forgetful learning modes are equal until the user starts to classify the context as **cat** after step 20.

The forgetful learning mode (**blue** and **red curves**) with a memory capacity of 20 steps will adapt to the changed user's preferences within 10 steps and then continue to classify the context correctly as **cat** from step 30 onwards. The not-forgetful learning mode (**yellow** and **green curves**) will continue to classify the context incorrectly as **dog** for another 10 more steps before adapting to the new user's preferences at step 40.