The purpose of this study is to know how the effectivity of learning using Wikipedia to increase mastery concept and student's self-regulation skill in virus concept. The sample of this study is the students of X MIPA 6 at 15 senior high schools Bandung with a total of 35 students. The method of this study using pre-experimental design with one group pretest-posttest design. The hypothesis that the writer purposed is the application Wikipedia as a media could increase the mastery concept and student's self-regulation skill in virus concept. The result of this study shows that the score of self-regulation skill in mastery concept with n-gain average 0.50 which is dominated 54% between 0.70-0.82 with criteria high increase and self regulation skills with 78% and the category is good. The hypothesis test result is significant < sig. hint 0.00 < 0.05 can be stated that there is a difference significant between pretest and posttest result, the conclusion is there is an increasing self-regulation skill after applied Wikipedia as a media in the learning process on virus concept this is caused by Wikipedia could increase the writing skills, critical thinking and cognitive thinking on category C2-C5, beside that the self regulation skills after applied Wikipedia get the good category this is caused by the students could arrange the learning with effective and could evaluate every action that they made.

Keywords: Wikipedia, Self-Regulation, Virus concept.