According to observation and interview with Biology Study Program Teacher at SMAN 1 High School of Arosbaya Bangkalan, there found several problems in learning process. Some of them were students’ achievement (daily test under expected rate) with 68.5 point, while minimum completeness criteria was 68. Statement of problems in this research was: whether TSTS model cooperative learning application could increase the study activity and achievement in students of grade IX.IPA-2 SMAN 1 High School of Arosbaya Bangkalan?

The research kind was classroom action, while approach used was qualitative. The research was done 12-27 May 2010 using two cycle and six time meetings. Students’ learning activity analyzed in descriptive way from observation using: % students’ activity = (the amount of descriptor showed up:the amount of students) x 100%, while students’ achievement and study completeness according to minimum study completeness stated by school (68).

The research showed increasing of average students’ activity, that was 70.25 in cycle I and 76.85 in cycle II. Students’ achievement also increased, from the average post-test grade which also increased each cycle. Average cycle I post-test was 79.7 while in cycle II was 82.6. Classical completeness also increased from 93% in cycle I into 98% in cycle II. According to the research, there could be concluded that TSTS (Two stray two stray) cooperative learning model could increase biology study activity and achievement in students of grade XI.IPA-2 SMAN 1 High School of Arosbaya Bangkalan.