We measured the motivation and interest of medical students in oral and maxillofacial surgery at a German university. After a detailed cost-benefit analysis of a course that used an ex-vivo animal model and active participation in the operating theatre, we measured changes in the students’ interest in taking up a surgical specialty in the future. We found that practical experience could lower the expenses of the course by almost 70%. Twenty per cent of students chose oral and maxillofacial surgery as an elective in their final year. These students could be residents one day.