While student-centered learning has variously been defined, the emphasis on active student learning rather than the focus on teacher teaching is common to many of the definitions. However, questions about how student-centered learning is interpreted and translated into practice are still difficult to answer. This study was conducted to investigate the extent of student-centered learning of biology in Japanese high schools and to explore the adaptability of the classroom practices to the Kenyan situation. As a reply to the above objectives, the study begins by discussing the meaning of student-centered learning, the justification for it and the tenets embodied by it, before presenting the results of the classroom investigations.

Three high schools in Hiroshima Prefecture were purposively selected on the basis of accessibility to the research subjects. A total of 31 lessons taught by four veteran (experienced) teachers and twelve student-teachers were observed and video-recorded, with a single lesson lasting 50 minutes. The video-taped lessons were then coded for the presence of predetermined categories of teaching strategy using the Teaching Strategy Observation Differential (TSOD) schedule (Anderson, Struthers, & James, 1974). The findings of the study show that the lessons are closer to being teacher-centered than to being student-centered. Two clear groups of lessons emerged; those rich in student activities (hands-on activities), and those which were expository relying mainly on lecture method, with student-teachers likely to use the former while the veteran teachers the latter.

Although a clear model of student-centered learning did not emerge from the results of analysis, the adaptability of the results of this research nevertheless, will involve piecing together the good strategies from different lessons to form "a pool of student-centered practices". This includes the use of hands-on activities to develop the content and process skills, occasional utilization of group synergies on practical tasks, stating hypothesis before a practical activity, clear objectives for student activities and providing scaffolds while carrying out demonstrations and experiments. The greatest challenge however, is how to leverage the implementation of student-centered learning in an environment constrained by the curriculum, textbook contents, examinations and the incumbent perceptions of students about learning.