ABSTRACT
The purpose of this study is to investigate the misconceptions of students, concept that become misconception, percentage of concept that become misconception on the topic of ecosystem system in grade X SMA Negeri District Medan Denai. This research type was descriptive. The samples were 130 students from 2 SMA Negeri in District Medan Denai. Data collected by using diagnostic test follow with open reasoning. The result showed the students have misconception with concept the role of microorganism in biogeochemical cycle was concept that highest become misconception for students. Percentage of concept that become misconception was 79.23%. The source and cause of misconception in this study was book and student self-experiences. The author proposed the students to increase their cognitive development by learn from other sources.

Keywords : Misconception, Diagnostic Test, Descriptive, Ecosystem