ABSTRACT: The research is descriptive that aimed to know how is the Students’ ability in comprehending complex compound of transition elements of fourth period in students of Chemical education Department of Gorontalo State University. Technique in collecting the data was test as instrument. Result of validity test was 100% and reliability coefficient was 0.74%. The result showed that students’ comprehending in complex compound material of transition elements of fourth period were (1) determining central atom at complex compound as 37.23%, (2) determining ligand at complex compound as 39.02%, (3) determining coordination number from complex ion as 35.12%, (4) determining the content of complex compound as 40.78%, (5) writing complex compound formula as 25.5%, (6) giving the name of complex compound as 30.82%, (7) determining the hybridizes of complex compound as 20.56% and (8) determining the form of complex compound as 40.78%.

Keywords: Concept comprehending, complex compound, transition elements.