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The ordinal regression method was used to model the relationship between the different levels of students' ability regarding the overall learning experience in the application of statistical procedures in both University of Cape Town (UCT) and University of the Western Cape (UWC), and the explanatory variables concerning demographics, emotions, students' attitude and students learning environment in these institutions. The outcome variable for students' attitudes was measured on an ordered, categorical six-point Likert scale. The major decisions involved in the model building for ordinal regression were deciding which explanatory variables should be included in the model and choosing the link function (e.g. logit link, probit link, cauchit link, negative log-log link and complementary log-log link) that demonstrated the model appropriateness. In addition, the model fitting statistics, the accuracy of the classification results and the validity of the model assumptions, e.g., parallel lines, were essentially assessed for selecting the best model. One of our main finding is that suitable environment for development of student capabilities to learn the skills of solving real life problems are highly significant with the application of statistical procedures. (Received September 26, 2017)