We introduce and compare several coalition values for multichoice games. Following the approach of Owen and Winter for cooperative games, we introduce a set of nested or two-step coalition values on multichoice games which measure the value of each coalition and then divide this among the players in the coalition using either a Shapley or Banzhaf value at each step. We show that when a Shapley value is used in both steps, the resulting coalition value coincides with one introduced by Albizuri. We axiomatize the three new coalition values and show that each set of axioms is independent. Finally we show how the multilinear extension can be used to compute the coalition values. (Received September 19, 2011)