The data set was published in 1991 (*Semi-parametric and non-parametric methods for the analysis of repeated measurements with applications to clinical trials. Statistics in Medicine 10, 1959–1980.*) from a study on the impact of different doses of an anesthetic from 60 children. As soon as the children enter the anesthetic recovery room after a surgery their level of “awakeness” is measured followed by three further measurements after 5, 15 and 30 minutes (“time”). The level of “awakeness” is given on a spectrum ranging from 0 (sleeping) to 6 (awake). For each child the categorical influence variable “Dose” (dosage of the anesthetic; 15, 20, 25 or 30 mg/kg) as well as the metric influence variables “Age” (in months) and “Duration of the surgery” (in minutes) have been observed.

The data “**hw6p2\_data**” is given on the blackboard.

You may want to re-code the time variable as 0, 1, 3 and 6.

**Questions:**

Treat the outcome variable as **ordinal,** use the Laplace estimation method to build a two-level logistic model for these data. Because all variables are of interest, they should be kept in the final model regardless of their statistical significance. Interpret significant effects.

[hw6\_p2data.sas7bdat](https://blackboard.slu.edu/bbcswebdav/pid-3315623-dt-content-rid-15016551_1/xid-15016551_1)