

Appendix 8

Constructivist Learning Environment Survey (CLES)

The CLES survey comes in four parts – student *actual* (what is happening in my class) and *preferred* (what I would like to see happening in my class) and teacher *actual* and *preferred*.

The survey over page is an example of a student **actual** survey designed for university classes. *Actual* and *preferred* surveys were given to the first year Applied Physics university students as part of the university physics department action research project which I discuss in Appendix 3. The lectures were also given *actual* and *preferred* surveys. The data was computer analysed, graphed in summary form and then interpreted by Peter Taylor. This analysis was then used alongside qualitative data (interviews, focus groups, video) to help the lecturers in the project reflect on the effectiveness of their teaching, student needs and learning styles as well as the underpinning metaphors that both students and lecturers were assuming.

I used a similar survey with my Physics classes in 1997 and 1998 Instead of *lectures* it said *classes* and instead of *lecturer* it said *teacher*. I used this survey alongside more open ended questions which I designed. I used the feedback from the students to reflect on my own teaching, where I would like to be, how I could be more effective and be more explicit to my students.