

## Chapter 13

### LEARNER DIFFERENCES

#### *Why you might find this chapter interesting*

*We begin this chapter by making the somewhat paradoxical point that equality of educational provision can only be achieved when every learner receives an individual – and different – experience. Taking this as a starting point, we examine some of the data from the projects in Part Two to illustrate the varied responses of different subgroups of learners in relation to their performance. We examine the active/reflective emphases of age and gender groups as well as their levels of engagement with tasks. But we are careful not to assume these tendencies are necessary conditions, and rather we explore the power of ‘working from strengths to tackle weaknesses’. We discuss the issue of learners ‘designing style’, that was the explicit focus of one project and a powerful influence of several others. We also explore the interestingly different effects of models of teaching and learning through the years of schooling; very different approaches being used by teachers, e.g. in primary and secondary schools. Finally, we examine the differential effects on learners’ performance of the resources and the substructures of the activities (see Chapter 12) that we have used to shape and steer our assessment activities.*

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#### 1. DIFFERENCE AND EQUALITY

Before considering the differences between learners explored through our various research projects, it is important to tease apart issues surrounding learner difference, equal access and differentiation, and to make our position

on these matters clear. At the outset of *APU Design & Technology* our understandings of difference were more limited than they have become through the research we and others have conducted since that time. But we recognised the link between difference and equality, our views echoing those expressed by Downey and Kelly.

equality is not a demand for similarity of treatment at all but for a justification for differential treatment, a justification which must take the form of demonstrating that our reasons for discriminating between people in certain contexts are relevant reasons and, therefore, arguably, fair, just and impartial reasons. Differential treatment of patients, therefore, is justified if they are shown to have different diseases or different constitutions; differences in our treatment of offenders are to be justified by reference to differences in the nature of their offences or the circumstances under which they were committed; and differences of educational provision are to be justified by appealing to differences exhibited by pupils in their ability to profit from education or what appear to be differences in their educational needs. (Downey & Kelly, 1975, p. 175)

We acknowledge that each learner will have strengths and weaknesses, some of which will be generic – such as a strong visualising or verbalising capacity, and some more directly related to design & technology. There are myriad ways in which learners can be different, and, if one is seeking equality for all learners, then teachers must take account of these individual differences in providing equal access to a design & technology curriculum. Downey and Kelly sum up this apparent paradox.

We have seen some of the inequalities that can result from attempts to fit ‘off-the-peg’ curricula or programmes to all pupils ... All of this would seem to point to the desirability of individually tailored provision. The paradox of equality in education is that it is only when the educational diet of every child is different from that of every other that we can really hope that we are near to achieving it. (Downey & Kelly, 1975, p. 205)

At first glance this presents a scenario so complex as to make all but a superhuman teacher feel unable to run an effective classroom. But in reality, awareness of a few key differences can have a significant impact on understanding how the development of design & technological capability might be affected. Our own understandings were deepened through *APU* as the whole issue of difference was opened up through our analysis of empirical data, focusing on gender and ability. These understandings have been extended by further projects as we have conducted research with a broader range of age groups, and also to see difference through an additional set of lenses – those of learning style and designing style.