Approaches to learning and perceptions of the learning environment
Introduction to the Special Issue

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It was in 1979 that the previous special issue on student learning was published in *Higher Education*. That issue reported some of the early work on the investigation of students' experiences of studying and learning in higher education. At that time the main emphasis was on establishing the concepts of deep and surface *approaches to learning*. Since then, these concepts have been firmly established in the research literature, and have also been accepted by practitioners involved in academic staff development and in advising students. Since that time other concepts have been introduced, creating both clarification and confusion in equal measures. The clarification has come, for example, from more refined definitions of ideas describing the reasons why students undertake courses in higher education (*educational orientations* – Taylor 1983) and what adults believe learning entails (*conceptions of learning* – Säljö 1979). Confusion has crept in with additional terms being used to describe overlapping concepts. The idea of students having clear preferences in the way they learn led Pask (1976) to introduce the terms *learning strategy* and *learning style*. 'Strategy' was used to refer to the preferences shown in tackling an individual task, while 'style' related to general preferences more akin to the psychological term *cognitive style* with its implications of relatively stable behaviour patterns rooted in personality differences or cerebral dominance. Unfortunately, the term learning style is also used in an even more general way to apply to any fairly consistent set of study behaviours, including approaches to learning (Schmeck 1988).

Marton and Säljö (1976) initially described the distinction which they found among students reading an academic article as deep and surface *levels of processing*, but later this was amended to *approaches to learning* (Marton and Säljö 1984) both to avoid confusion with the same term used in relation to memory processes, and to make clearer that 'approach' included not only process, but also intention. The term 'approach' was originally used to describe only the specific form of study activity provoked by the student's perception of a task instruction on a particular occasion. In other words, the approach was seen to depend crucially on both the context and the content. However, it became clear that students showed a certain consistency in their approaches to learning, at least at a fairly broad level of analysis. Thus, it made sense to develop questionnaires which would indicate the balance between approaches to learning which students were typically adopting in their studies. Biggs (1987) had initially used his own terminology for factors which he identified

independently in the factor analysis of an inventory of study processes, but he has subsequently accepted the terms 'deep' and 'surface'. Analysis of inventories often produce more than the two main categories of approach. Typically there is at least one other, which is referred to either as a *strategic* (Ramsden 1981) or as an *achieving* approach (Biggs 1987). But in some analyses, scales covering approaches, styles, motivations, and study methods are combined and typically produce rather broader factors which have been called *study orientations* (Entwistle and Ramsden 1983). Then, besides the three main factors, another less consistently defined factor has been found, originally called 'non-academic orientation', but better described as *study pathologies* (Entwistle 1991).

As the research has progressed over the last ten years, more interest has been shown in what influences the approach to learning that a student adopts. While individual differences between students in approaches to learning and studying may remain *relatively* stable over time and course, the balance between deep and surface for the whole class can be altered by, for example, the assessment procedure (Thomas 1986). But besides fairly general influences on approach, other ways in which the learning context influences approach are more indirect, as the effects are mediated by the characteristics of the individual student. For example, students who are consistently relying on a surface approach actively prefer, and rate more highly, lecturers who provide pre-digested information ready for 'learning', while students with a deep approach prefer lecturers who challenge and stimulate (Entwistle and Tait 1990). Thus, it is students' *perceptions* of the learning environment that influence how a student learns, not necessarily the context in itself (Entwistle 1987).

Recognising the importance of this distinction, Meyer has been exploring the use of unfolding analysis as a technique which can map the inter-relationships between inventory scales covering both approaches to learning and perceptions of courses or learning environments (Meyer and Muller 1990). This type of analysis can show how a class of students relates approaches to perceptions, and can also place individual students within the two- or three-dimensional space created. These patterns of inter-relationships have been described as *study orchestrations.* From an examination of the study orchestrations either of a class or an individual student, it is a short step to discovering reasons for those patterns. And it is from such analyses that a good deal of recent work on counselling students has stemmed.

However, it is not just advice to students which comes in the implications from this area of research. Above all, it indicates how the whole teaching-learning *system* affects the quality of student learning. Changing one component – like study skills advice – can have little effect, if teaching and assessment remains unchanged. Thus, much current research is investigating in what specific ways aspects of the learning environment affect approaches to learning and the quality of the learning outcomes achieved by students. This current *Special Issue* reports a series of studies which have addressed this theme.

In the first article, Noel and Abigail Entwistle report the experience of students in revising for final examinations and show how the nature of the examination affected the form of understanding which the students were seeking. Christine Sheppard and John Gilbert have found that approaches to learning are influenced by lecturers'

theories of teaching and by the ways in which knowledge is structured and presented. Keith Trigwell and Michael Prosser add to the previous analyses of the relationships between approach and perceptions of the learning environment, a criterion describing the qualitative outcomes of learning. They stress that teaching, as well as approach to learning, has two components – intention and strategy – and that some lecturers introduce innovations which are intended to improve the quality of learner, but which in implementation contradict that intention. Herman Nuy has explored the use of problem-based learning and has also found problems in implementation created by the different extent to which students require structure, of different kinds, to support their studying. The belief that students will learn better autonomously is seen to be doubtful as a generality – it depends on the student. Again it is the interaction between student and context which explains the outcome.

In the second group of articles the emphasis shifts towards the study activities of the student, although with still considerable interest in the effect of the learning environment. John Thomas and his colleagues review a series of studies which indicate how the origin of the study strategies adopted by students in higher education can be located in teaching practices in the schools. Erik Meyer is also concerned about the perceptions of the learning environment that students bring from school, and he shows the power of unfolding analysis as a technique for describing a study orchestration and how such a pattern can be a starting point for effective intervention, either with a student or with a course tutor. In the final article, Barry Dart and John Clarke describe an intervention with student teachers in which insights into the nature of learning were fostered by a programme including peer discussion and learning contracts. They showed a marked increase in deep approaches to learning which could be attributed to the intervention.

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