

# Styles of Practice in Higher Education

Exploring approaches to teaching and learning

Edited by  
Carol Evans and Maria Kozhevnikov



# Styles of Practice in Higher Education

This book focuses on the application of styles research in practice and highlights important discussions occurring within the styles field that have direct relevance for the development of effective twenty-first century learning environments. Styles research in this context is used as an umbrella term to encompass cognitive styles, learning styles, and approaches to learning, as well as student and teacher beliefs and conceptions of learning and teaching. Styles have the capacity to influence instruction in the ways that an educator chooses to design and deliver the curriculum and the ways in which learners interact with a learning environment. In essence, styles moderate the effectiveness of educational interventions. However, the potential of styles to inform teaching and learning, and vice-versa remains under-explored. Furthermore, the frequent misuse and misinterpretation of styles has led to over simplistic assumptions and practices including the labelling of learners as one style or another and the focus on matching mode of instruction to style of learner. A fundamental challenge, therefore, remains the dissemination of clear guidance on the effective ways of using styles research in practice; this is the core aim of the Education, Learning, Styles, Individual differences Network, whose members have contributed chapters to this book.

The volume provides a major contribution to the knowledge base on enhancing the application of styles research to practice within both educational and workplace settings and is of considerable value to those involved in the design and delivery of effective learning environments within higher education. Relationships between styles variables and other individual learning differences are considered across a range of subject domains (medicine, science, teacher education) and cultural contexts. The key themes discussed include the potential of constructivist environments to effect change in learning behaviours; the notion of deep approaches to learning; relationships between approaches to learning and self-regulated learning; the varied learning and teaching responses of students/teachers to specific constructivist interventions including the identification of specific patterns of responses that are characteristic of highlighted groups; relationships between conceptions and approaches to learning and teaching

This book was originally published as a special issue of *Research Papers in Education*.

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Carol Evans and Michael Waring

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## Chapter 4

*Why is my design not working? The role of student factors*

Chinthaka Damith Balasooriya, Cihat Tetik and Peter Harris

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*Teacher educators' conceptions of learning to teach and related teaching strategies*

Vincent Donche and Peter Van Petegem

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*The relationship between teaching and learning conceptions, preferred teaching approaches and questioning practices*

Maria Helena Pedrosa-de-Jesus and Betina da Silva Lopes

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**Chapter 7**

*Knowledge construction: the role of the teacher's interpersonal attitudes*

Davide Mate, Adelina Brizio and Maurizio Tirassa

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## NOTES ON CONTRIBUTORS

higher education and initial teacher education contexts. Generally and as part of the exploration of this personalised learning agenda, he is interested in the use and innovative development of qualitative research methodology, particularly grounded theory.

## INTRODUCTION

### **Styles of practice: how learning is affected by students' and teachers' perceptions and beliefs, conceptions and approaches to learning**

This special edition of *Research Papers in Education* features the work of members of the Education, Learning, Styles, Individual differences Network, the only multi-disciplinary international research organisation specifically established to promote the importance of work on styles and individual differences within educational and work-place contexts.

In the last six years, styles research has moved forward considerably, both conceptually and methodologically and in terms of its successful application within diverse learning environments (Evans and Cools, forthcoming; Evans, Cools, and Charlesworth 2010; Rayner and Cools 2011; Zhang and Sternberg 2009).

In this editorial, styles research is used as an umbrella term to encompass cognitive styles, learning styles, approaches to learning, as well as student and teacher beliefs and conceptions of learning and teaching. In so doing, we are highlighting the need to consider more integrated models of styles dimensions that have the potential to capture major individual differences in the way people go about learning (Vermunt and Endedijk, forthcoming). In our work, and building on that of Rayner (2000) and Nosal (1990), we have confirmed the complexity of styles by acknowledging the multi-faceted nature of an individual's personal learning style (Evans and Waring 2009) and the hierarchical nature of styles (Kozhevnikov 2007), respectively.

### **Overview**

Within this special edition, three articles focus on the student perspective and a further three articles focus on the teacher educator perspective. Relationships between styles variables and other individual learning differences are explored across a range of subject domains (medicine, science, teacher education) and cultural contexts (Portugal, Sri Lanka, Australia, the UK, Belgium and Italy) within higher education including undergraduate and postgraduate academic and professional study.

From the student perspective, the first three articles explore the relationships between students' approaches to studying and performance; approaches to studying and perceptions of the learning environment and the relationship between cognitive styles, culture and perceptions of feedback (Albergaria Almeida, Teixeira-Dias, Martinho, and Balasooriya; Evans and Waring; Balasooriya, Tetik, and Harris, respectively). From the teacher perspective, articles 4–6 consider relationships between teachers' conceptions of learning to teach and their teaching strategies and preferred teaching approaches, as well as the impact of teachers' interpersonal attitudes on

aspects of student learning (Donche and Van Petegem; Pedrosa-de-Jesus and da Silva Lopes; Mate, Brizio, and Tirassa).

The studies included in this special issue incorporate a variety of research designs and methodologies to include more mixed methods involving qualitative approaches in naturalistic settings, in addition to positivist laboratory-based quantitative studies. A significant role of this special issue is to continue to promote the use of interpretive methodologies and research designs that are contextually nuanced, situated in constructivist settings and also drawing on sociocultural perspectives (Marshall and Case 2005).

The articles highlight important themes that are directly relevant to all those involved in the design of effective learning environments, and in so doing, they provide a major contribution to the knowledge base on enhancing the application of styles research to practice within both educational and workplace settings. The key themes discussed include the potential of constructivist environments to effect change in learning behaviours; the notion of deep approaches to learning; relationships between approaches to learning and self-regulated learning; the varied learning and teaching responses of students/teachers to specific constructivist interventions including the identification of specific patterns of responses that are characteristic of highlighted groups; relationships between conceptions and approaches to learning and teaching. In addition, debates surrounding the nature of the relationships between perceptions, beliefs, conceptions, cognitive styles and approaches to learning in affecting learning outcomes are explored.

### **The potential of constructivist environments to effect change in learning behaviours**

Balasoorya et al. and Evans and Waring (this issue) provide evidence of the positive effects of interventions designed using constructivist principles, supporting the findings of Entwistle and Peterson (2004), Hativa and Birenbaum (2000) and Lea, Stephenson, and Troy (2003). Much of the literature, over the last two decades, reports on a great deal of the work done to enhance the design of so-called 'new learning environments' (NLEs) (Simons, van der Linden, and Duffy 2000) using constructivist approaches with the aim of encouraging students to adopt deeper and more self-regulated/directed approaches to learning. Constructivism '... considers the learner as a responsible, active agent in his/her knowledge acquisition process' (Loyens and Gijbels 2008, 352). In their discussion of features comprising a constructivist environment, they include the following: students actively constructing knowledge individually and through social interaction with others; students' agency in learning as self-regulated learners; authentic learning experiences resembling real-life situations. The translation of constructivist learning principles into practice, however, has proven difficult and complex due to the different interpretations of what this actually involves, including how the different elements are meshed together (Harris and Alexander 1998).

Whilst the potential of NLEs to improve outcomes is evident, Haggis (2003) suggests such claims are ambitious given the reported stability of perceptions, conceptions and approaches to learning (Balasoorya, Toohey, and Hughes 2009; Gijbels and Dochy 2006; Segers 1996). Where success has been limited, a lack of constructive alignment between educational objectives and assessment has been given as one explanation (Biggs 1999; Biggs, Kember, and Leung 2001; Struyven et al. 2006, 2008). In relation to the issue of constructive alignment, Evans and Waring (this issue) argue that the application of constructivist approaches to assessment (including

feedback) has lagged behind other components of curriculum design and highlight the importance of the role of the student in acting on feedback (Gijbels et al. 2009; Segers, Gijbels, and Thurlings 2008). On the issue of assessment and its impact on students' approaches to learning, Karagiannopoulou and Christodoulides (2005) argue that assessment should be the first aspect of the educational culture on which educators should focus due to its link to levels of student satisfaction; others argue the greater importance of student/teacher perceptions of assessment demands. Following this line of argument, students' perceptions of the requirements of assessment and *not* the assessment itself are seen as the key to impacting on the approaches to learning individuals adopt (Biggs 1999; Ferla, Valcke, and Schuyten 2009; Gijbels, Segers, and Struyf 2008; Segers, Nijhuis, and Gijsselaers 2006). Whilst most of these findings concern student perceptions, we would argue that this could equally be applied to teacher perceptions; however, we know far less about teacher beliefs, and further research in this area is needed to validate this viewpoint (Vermunt 2011). These debates concerning the influence of assessment also highlight the necessity for further research on the conditions under which assessment influences deeper approaches to learning (Gibbs and Simpson 2004).

### **Deep approaches to learning?**

What constitutes a deep approach to learning is explored within this special issue. Understanding that approaches 'are not characteristics of learners, they are determined by a relation between a learner and a context' is important; the notion of a deep learner is thus inappropriate (Struyven et al. 2006, 279). Albergaria Almeida et al. (this issue) identify the most successful students as those who knew when to use deep and surface approaches to achieve their end goal. Peterson, Brown, and Irving (2010) also acknowledge that those with more advanced conceptions of learning were more able to select the most appropriate learning processes for a task which included both deep and surface approaches. Combinations of deep and surface approaches, although previously judged as 'disintegrated approaches' (Meyer 2000), could, however, represent more sophisticated use of approaches with students choosing to simultaneously combine approaches to achieve desired goals, as deep approaches do not necessarily exclude more surface ways of learning. There is still much that we do not know, for example, whilst the deep approach appears to represent a single, coherent concept, Haggis (2003) argues that there is little empirical support for a pure form of surface approach and that more elaborate analysis of the nature of students' learning is required. Considering the complexity surrounding the nature of approaches to learning, whilst Duarte (2007) identifies surface and deep approaches constituted as two opposing dimensions, Case and Marshall (2004, 606) argue that a bipolar description of approaches to learning may not capture some of the nuances and subtleties in students' learning experiences. We need to know more about the nature of the interaction between styles, perceptions, conceptions and approaches to learning as well as being able to clarify the necessary components of a deep approach in relation to the needs of twenty-first-century learning.

### **Approaches to learning and self-regulated learning**

The relationship between approaches to learning and self-regulated learning (Duarte 2007) is one of increasing interest within NLE research. Donche and Van Petegem