

Perspectives on Individual Differences

LEARNING
Strategies
AND
LEARNING
Styles

EDITED BY
RONALD R. SCHMECK

Learning Strategies and Learning Styles

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*Learning Strategies
and Learning Styles*

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Preface

A style is any pattern we see in a person's way of accomplishing a particular type of task. The "task" of interest in the present context is education—learning and remembering in school and transferring what is learned to the world outside of school. Teachers are expressing some sort of awareness of style when they observe a particular action taken by a particular student and then say something like: "This doesn't surprise me! That's just *the way he is.*"

Observation of a single action cannot reveal a style. One's impression of a person's style is abstracted from multiple experiences of the person under similar circumstances. In education, if we understand the styles of individual students, we can often anticipate their perceptions and subsequent behaviors, anticipate their misunderstandings, take advantage of their strengths, and avoid (or correct) their weaknesses. These are some of the goals of the present text.

In the first chapter, I present an overview of the terminology and research methods used by various authors of the text. Although they differ a bit with regard to meanings ascribed to certain terms or with regard to conclusions drawn from certain types of data, there is nonetheless considerable agreement, especially when one realizes that they represent three different continents and five different nationalities. Furthermore, the data upon which their concepts are based were gathered from widely differing cultural populations, and some of the theories were originally formulated without awareness of related work being done by some of the other authors who now appear next to them in the present text. Yet, in spite of such differing origins and differing perspectives, the authors show remarkable agreement regarding how best to conceptualize the educational process and the individuality of students. There is also considerable agreement regarding the best ways to apply the resulting theories in practice in order to improve education.

The second chapter, prepared by Noel Entwistle, recognizes that at the core of any “style” must lie something very basic which permeates a person’s perceptions and subsequent behavior enough to produce those consistencies to which we apply the label “style” or, in his words, “orientation.” It is his view that a major component of this core is the student’s *motive*. He identifies three broad classes of motives: (a) pure interest in learning (or more broadly, in self-actualization); (b) the need to demonstrate self-worth coupled with the assumption that one will fail (constantly striving to avoid being “the fool”); and (c) the need to demonstrate self-worth coupled with the assumption that one will succeed (constantly striving to accumulate symbols of merit—e.g., praise and high grades). One of these three motives tends consistently to lie behind each of the “approaches to learning” discussed by Ference Marton in Chapter 3. Chapter 6, dealing with self-concept, relates nicely to Entwistle’s discussion of motives.

Marton’s Chapter 3 presents an overview of innovative, *qualitative* research into learning carried out at the University of Goteburg. Using interview data in which students describe their experience of learning in school settings, Marton has formulated conceptions of the process that parallel formulations that I and my colleagues developed on the basis of large-scale survey research in the United States. We both found that one can place a student’s approach to the task of learning on a continuum that extends from *surface* (or as I’ve called it, “shallow”) processing of symbols to *deep* analysis of the meanings that underlie symbols (including, ultimately, formulation of personal conceptions of reality). This surface to deep continuum can be used to describe how students’ define learning, how they approach the task of studying, how they approach education in general, and to their approach to specific tasks such as reading and writing. All of this is discussed in the chapters of the present text.

The fourth chapter, by Gordon Pask, reviews some classic research which equals Marton’s work in terms of the impact that it has had on other researchers—for example, myself (Chapters 1, 6, and 12) and Entwistle (Chapter 2). Instead of using interviews and the “retelling of texts” as Marton had, Pask relied upon one-to-one tutorials and computer-assisted tutorial systems in which students reveal their trains of thought by requesting specific bits of information and then demonstrate that they understand by teaching the information back to the researcher. Pask consistently uncovered two basic cognitive *strategies*, which can be called *styles* when they are used consistently across varied situations. The two styles/strategies are *holist learning* (paying special attention to global features of experience) and *serialist learning* (preferring detailed

sequential analysis of experience and enjoying especially the specification of procedural rules).

In Chapter 5, J. P. Das presents a review of his work. Within the context of education, Das has applied the concepts of simultaneous-successive coding processes and planning processes originally identified by the Russian psychologist Luria. Luria studied brain-injured patients to uncover cognitive processes, and Das and his colleagues (cf. Kirby's Chapter 9) have used psychological testing procedures (including factor analysis) to identify and assess these same processes in students and to determine ways in which they might account for and suggest ways of improving the level of functioning (e.g., reading) of those students in the school setting.

Patricia McCarthy and I make an attempt in Chapter 6 to tie what is known of social development and self-concept development to performance in educational settings, including a suggested connection between the person's social experience and his or her cognitive style. We describe research indicating that the quality of a learning outcome (the coded educational experience) is heavily influenced by the personality of the student. Students do not all derive the same conceptions from the same experiences, and this can be explained, in part, by differences in self-esteem which subsequently affect both perception and cognition (i.e., learning style). Possible connections between social experience and cognitive style are discussed further in the final chapter.

The style and strategy concepts developed in the first half of the book are applied to practical educational problems in the last half. In addition to applying the concepts to some classic problems in the areas of reading, writing, and creativity, the latter half of the text confronts such issues as situational determiners of style (the nature of the school setting) and how to change style.

In Chapter 7, Paul Ramsden discusses aspects of the educational setting that most influence students' approaches to the material to be learned. The way in which a course of study is structured can profoundly influence the ways in which students process information presented to them, and the ways the information is processed determine the nature of the codes left behind in memory. One of the interesting aspects of Ramsden's chapter is that he basically agrees with the concepts developed earlier in the text but argues nicely that style is quite flexible and really not very "stylistic" at all, in the sense that it is *not* "fixed."

In Chapter 8, John Biggs uses the surface-deep continuum discussed above to analyze differences in ways students approach the task of writing an essay. His analysis of writing is derived from and illus-

trated by interviews with students regarding their perceptions of the task of writing, and this data is related to questionnaire data regarding learning styles and some actual essays written by those same students. Anyone interested in either teaching writing or in using writing as a means of encouraging thinking should find Biggs' chapter fascinating.

Likewise, John Kirby's Chapter 9 applies the style and strategy concepts developed earlier in the book to the task of reading. Kirby's chapter complements Biggs' chapter in that he addresses another one of the basic skills involved in education. Kirby's chapter also complements Das' Chapter 5 in that Kirby and Das come from the same theoretical perspective and use similar methods. In my own final chapter, I have applied Kirby's analysis of how reading comprehension develops in a broader analysis of the development of cognitive style in general. He feels that the highest level of reading comprehension requires the integration of two earlier modes of cognitive functioning—global and analytic. The integration of the two is a difficult operation, and some individuals remain fixated at the global or analytic level of development.

Chapter 10, by Torrance and Rockenstein, presents an excellent overview of Paul Torrance's extensive research on creativity and its relation to preferred mode of information processing. Rather than concluding that creativity is restricted to more global (or "right-brained") modes of processing, Torrance argues that both modes (right- and left-brained, or "global and analytic," to use Kirby's terms) have a strength that is required for a creative act to be carried through to fruition. The right-brained mode is associated with an aspect of creativity that Torrance calls "creating-by-inventing," while left-brained thinking is related to "creating-by-improving." Both functions are required for true creativity, and Torrance refers to such functioning as "whole-brained" (Kirby uses the term "synthetic").

In Chapter 11, Claire Ellen Weinstein describes her extensive research into the most effective ways of teaching students to use various learning strategies. Since a style essentially involves a special preference for one of the strategies, teaching students to use new strategies can result in modifications to their styles. As I mentioned above, I have addressed the question of modifying styles in Chapter 12, and it is my firm belief that the procedures developed by Weinstein are an effective means of accomplishing modifications. Also, her classification of the various learning strategies is extremely useful.

In Chapter 12, I summarize the text and go somewhat beyond the information presented therein to try to suggest new areas for future research and new ways of improving education. Based upon Kirby's work, I suggest that development of cognitive style proceeds from predominantly *global* to *analytic* and eventually, in self-actualizing indi-

viduals, to an *integration* of the global and analytic modes. I agree with Ramsden that the situation greatly influences the approach a person takes to it, but I argue that there is still a stylistic element that is often very resistant to change. The only individual who is truly flexible is one who has integrated global and analytic functioning. Most individuals strive for integration, but few achieve it.

Following up on some of the ideas presented by McCarthy and me in Chapter 6, I suggest in Chapter 12 that the difficulty encountered during integration relates to one's early social development, in particular, to the experiences affecting the development of one's concept of self, including one's self-esteem. I note that teachers cannot, of course, reconstruct students' personalities, but they *can* try to build on personal strengths and avoid inadvertently preying upon personal weaknesses. In so doing, it may indeed be possible for a *series* of teachers (in effect, the whole school experience) to alter personalities (and styles) of students in ways that broadly benefit the society that the school system serves.

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Carbondale, Illinois

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