

# focus

on university teaching and learning

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## Learning Styles

You notice that some of your students are reluctant to join in when you ask the class to form into groups. Some students are doing better on project work than on exams. Some question and challenge you, eager to speak up in class; others remain quiet and reluctant.

Rather than feeling frustrated because you think you have failed with some of your students, or that they themselves are unprepared for class, take heart. Recognize that students vary dramatically in the way they process and understand information. The term "*learning styles*" refers to students' preferences for some kinds of learning activities over others, namely, *how* students learn, not *what* they learn.

Students and teachers often blame each other if a course isn't going as anticipated. Much of this dissatisfaction can be overcome by recognizing and responding to learning style differences.

### Why is it important to know about learning styles?

We should not use learning style information to pigeon-hole or stereotype students, but rather to acknowledge that the process of learning is just as important as the content. If one of the goals of university education is to prepare students for a life of learning, then reflection on how they learn should be an essential part of students' experience in every course. Knowing about learning styles can help students and teachers pinpoint the source of difficulties, identify alternative approaches to the acquisition of knowledge, and validate variety. Information on learning styles can be obtained through questionnaires, such as the Kolb Learning Styles Inventory and the Myers-Briggs Type Indicator, or simply by having students write a paragraph on "How I Learn Best."

Teachers can let students know that not all their learning preferences will be accommodated all of the time, but that there will be a number of different assignments, classroom activities, and evaluation tools so that no student is disadvantaged. Techniques such as additional tutorials, group assignments, and peer support can be provided. Students can and should share responsibility for identifying the ways they work best and for improving their abilities to learn in less-preferred situations.

## The Value of Learning Style Information

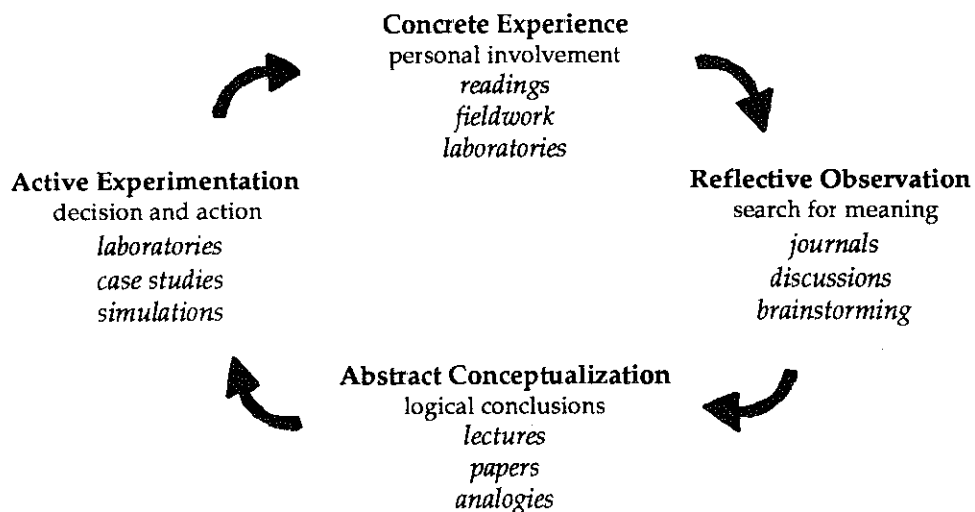
The following points summarize the value of learning style information in creating a classroom environment which recognizes and supports the diversity of styles among students.

- Low satisfaction or poor performance in a course or particular activity may be misinterpreted as lack of knowledge or ability, when it is actually a problem with a particular style of learning.
- Teachers with an understanding of their students' learning styles are better able to adapt their teaching methods appropriately.
- Teachers who introduce a variety of appropriate teaching methods into their classes are more likely to motivate and engage students in the learning process.
- Students who learn about their own styles become better learners and develop more positive attitudes about their studies, greater self-confidence, and more skill in applying knowledge.
- Information about learning styles can:
  - ✓ help teachers become more sensitive to the differences among students
  - ✓ guide the design of learning experiences that either accommodate students' preferred learning style or develop their ability to learn in other ways.

## Using Learning Style Information

Encouraging students to be self-reflective learners can lead to their better understanding of the learning process as a whole and can lead to an appreciation that there are a number of ways of acquiring and creating knowledge. One particularly helpful approach to learning is Kolb's "experiential learning model" which describes the four dimensions in a "learning cycle" (Figure 1).

Figure 1 Kolb's Experiential learning cycle and supporting activities



The empirical testing which occurs during **active experimentation** gives rise to new experiences which start the learning cycle again at a greater level of complexity. The teaching activities listed support different aspects of this learning cycle and can be adapted for individual or group, competitive or collaborative, in-class or out-of-class activities.

Adapted from Svinicki, M.D. and Dixon, N.M., 1987.

## Kolb in the Classroom

In teaching a course called Advanced Professional Practice in the School of Occupational Therapy, I use two related concepts developed by Kolb: the experiential learning model and preferred learning style.

I try to provide class activities that promote learning through Kolb's four different processes: concrete experience, reflective observation, abstract conceptualization and discussion of implications for professional practice. Students also learn the skill of critical reflection (as described by Jack Mezirow) to examine the assumptions which underlie the meaning they attribute to their experiences. I don't always follow Kolb's sequence or incorporate critical reflection in each class.

Students give biweekly written course evaluations during the final five minutes of a class, writing responses to open-ended questions about something they have learned or thought about in a different way, ideas they find vague or confusing, and suggestions for improving the class. Student comments showed me clear preferences and dislikes for the different learning processes I was using. The timing seemed right to examine preferred learning styles: to ask students to reflect on their classroom experiences so that we could examine the concept of learning styles and the implications for occupational therapy practice. I devised a classroom exercise. After scanning a 1985 version of the Kolb Learning Style Inventory for one sentence set, I chose the following: **I learn best when 1) I rely on my feelings 2) I rely on my observations 3) I rely on my ideas 4) I can try things out for myself.**

I used this sentence with its four different endings as a forced-choice exercise. Students had to choose the ending which best described their preferred learning style. They gathered with others who had made the same choice to discuss their learning style, its strengths and weaknesses. Each group reported back. I listed key words from the reports on the board. Individuals were quick to point out that they learned through more than one process; they also acknowledged the benefits of the exercise in highlighting the different processes of effective learning. Students moved easily on to abstract conceptualization about learning style and its application to their personal lives and occupational therapy practice. We finished the exercise with a discussion of the Kolb experiential learning model by connecting the classroom exercise to the literature. We also discussed the potential of critical reflection for promoting transformative learning.

In the next round of evaluation, students wrote that they could appreciate the variety of ways in which they learned. They were less sure about how to apply knowledge of preferred learning styles to professional practice.

This exercise is a significant modification, and possibly a mockery of, the Kolb Learning Style Inventory which asks a minimum of nine questions then combines scores to arrive at a more sophisticated and complete description of learning styles. However, it served my purpose to have students consider their preferred learning style and the implications for occupational therapy practice with clients and colleagues whose learning styles are different. Occupational therapy practice is concerned with people's occupations: the concrete experiences that provide meaning, structure, and balance in our everyday lives. We enable people to adapt to disabling conditions by reflecting upon the meaning of their occupations and learning new ways to restore meaning, structure, and balance in a reconstructed set of occupations.

For me, use of the experiential learning model and critical reflection, combined with an understanding of our own learning style, has direct application to the university classroom and our students' lives.

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## Cautions and Concerns

James Eison from the Center for Teaching Enhancement at the University of South Florida presented a session at Dalhousie University on recognizing and responding to students' learning style differences. Dr. Eison suggests that professors take note of the following points as they apply learning styles information in their classrooms:

- An individual's learning style is, in fact, not one style but many (Dixon, 1985).
- Learning style information should not be used by faculty to pigeon-hole individuals.
- Self-fulfilling prophecies can be created when students are led to believe that they have certain preferences for how they best learn (Grasha, 1985)
- More study is needed to demonstrate the impact learning styles have on student learning and student satisfaction
- Matching learning style strengths with educational environments may limit the growth that might occur if students were exposed to other educational environments.
- The instrumentation used to measure learning styles has limitations (Ferrell, 1983)

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Conduct your own classroom-based "action research" on the relationship between learning styles and student satisfaction/performance. The Office of Instructional Development and Technology can assist you in planning these types of studies.



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