

## Learning Styles and Teaching

When people buy a cell phone for the first time, they may read the manual to learn all the features, ask a salesperson to explain how it works, or just start playing around with it to see what it does. People tend to have particular ways that they best learn something new, which may include reading about it, hearing someone explain it, following a model or diagram, or trying it for themselves. The academic literature often describes these differences of preferred ways of learning as learning styles. There are various models of learning styles and a variety of instruments for identifying one's learning style. There is, however, some debate over what constitutes a learning "style" versus a learning "preference" or a learning "pattern." Without delving into the theoretical discussions and examining the competing models, we can recognize that different people prefer to learn and convey information in different ways.

Some approaches to learning styles categorize people as visual, aural, read/write, or kinesthetic learners. Visual learners prefer to see information depicted pictorially, through diagrams, charts, graphs, and symbols. Aural learners need to hear information and may want to talk about course material to help them learn it. Read/write learners glean information from reading and use writing as a memory aid. Kinesthetic learners use a hands-on approach to learning and respond well to laboratory work, field trips, simulations, demonstrations, and other methods that involve direct experience or the application of concepts. Most people do not fall neatly into just one area, but need to use a variety of learning and communicating strategies to learn new information or a skill.

Another way of conceiving of learning styles comes from the Myers-Briggs Type Indicator, a personality inventory which characterizes people in terms of whether they are oriented toward the outside world or an inner world (extroversion or introversion) and their preference for straightforward information or for interpretation and

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## Learning Styles...

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imagination (sensing or intuition). (Myers-Briggs also explores other types of preferences in relation to decision-making and structure, which are less relevant to a general understanding of learning preferences. For more information, visit [www.myersbriggs.org](http://www.myersbriggs.org).) According to proponents of the Myers-Briggs approach, some people are most interested in concrete information and learn best through practical applications and direct experience, while others are engaged by abstract concepts and ideas and prefer analysis, observation, and reflection as methods of understanding.

Educational settings tend to privilege reading, writing, analysis, and abstract thinking. Many college instructors use a lecture format exclusively, and, by necessity, most of the work assigned to students to prepare them for any given class period will consist entirely of texts to read. Of course, there is likely to be some variation according to discipline—literature students spend most of their time reading and writing, while students in the sciences are generally required to do some laboratory work.

Sometimes, students who are intelligent and want to do well may struggle academically because their learning preferences don't fit with the instructional environment they're faced with. You can help your students recognize their learning preferences and develop strategies that will let them use their preferred styles to absorb and process information, regardless of how the instructor has chosen to convey it. For instance, aural learners may benefit from using a tape recorder during class, while visual learners may need to convert lecture notes into symbols and diagrams and use highlighters, underlining, and different colors of ink.

A Google search on "learning strategies" brings up a variety of resources. You can direct your students to free online questionnaires to help them discover their learning style and find corresponding tip sheets and recommendations. One place to start is [www.varklearn.com](http://www.varklearn.com), a website which offers useful information on the concept of learning preferences, as well as a questionnaire and study tips tailored to each of the various learning styles.

You can also help your students by recognizing that your teaching style may be geared toward your own preferred way of learning and by varying your methods occasionally to engage a variety of learning styles.

Most instructors realize that students can benefit from discussing their ideas and engaging in activities which allow them to apply concepts or problem-solve; one reason may be that this allows students to learn material in a different way, one that more closely aligns with a learning preference. In addition to in-class discussions, other alternatives to the lecture format include group projects, student presentations, structured debates, experiential learning, and case studies. Some students learn best when they have a chance to explain class material to other students, while introverted students may want to pause for writing and reflection.

In addition to only presenting material through lecture and texts, most courses require that students present their work in written form. If the class size and the subject allow it, consider giving students the chance to be evaluated on work that uses other forms of communication, such as oral or visual presentations. (Aside from the issue of learning styles, when students graduate, their jobs may well require that they be comfortable giving presentations or speaking to a group, and you can give them some practice.)

Thinking about learning styles can make you a more effective teacher. You can also apply these lessons to yourself. Explore your own preferences, and consider how using alternative or multiple learning strategies might help you in your graduate studies.

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## Beyond Google: Undergraduate Research and the Library

A first-year student, faced with an assignment requiring her to learn how to use the library's online catalog, complained to her instructor that it was a waste of her time, because she can find everything she needs for an upcoming research project on Google. This student didn't understand the difference between what she would find using a search engine and what she would find in the library catalog—namely books, journals, and other materials that the library owns in physical or virtual formats. This student is not alone in her beliefs. Undergraduates often assume that they can do all of their research online. They don't realize how much they are missing in their Google searches, including older information, only available in print copies of journals or on microfilm or microfiche, many academic journals, and, of course, books, very few of which have been digitized and made available online. Even students who are sophisticated enough in their Internet searching to use Google Scholar and find references to academic journal articles don't realize that access to the articles themselves generally requires a subscription, and, further, that the Rutgers library probably has the necessary subscriptions that will allow them to read the articles. By visiting the library website ([www.libraries.rutgers.edu](http://www.libraries.rutgers.edu)) from a computer on the campus network, or logging in to the website with their Net IDs when off-cam-

pus, students can gain access to electronic journals, encyclopedias, dictionaries, and other resources.

Not only are many students unfamiliar with the library's website and IRIS, the online catalog, but they may also avoid the libraries themselves. A graduate student instructor in English literature was surprised to learn that many of her students, who were junior and senior English majors, had never used Alexander Library, except as a place to study. Undergraduates are often afraid of the library because they don't understand how to find the material they need or how the resources are organized. They may not be confronted with the need to use the library or to do research until late in their college careers, and professors who assign research papers may not give any instruction on how, exactly, to conduct the necessary library research, assuming that the students already know how. This lack of research skills, combined with a comfort with the Internet, may lead to either poorly researched papers or to plagiarism.

If you can teach your students what it means to conduct research and demystify the library for them, not only will you increase the chances that they will learn something in the course of a specific research project, you'll be giving them some highly useful, concrete skills. Design an assignment that requires students to use a variety of research sources,

including books and articles. Discuss the difference between a website and a peer-reviewed article published in an electronic journal. Talk to students about the library catalog and about how looking for a particular book in the stacks may lead them to other relevant books.

The staff at the Rutgers libraries are happy to help you teach your students about their resources. You can schedule a library instruction session for your class by contacting the instruction coordinator on your campus. You can also set up an appointment with the subject specialist librarian for your field. In addition, the library website provides online tutorials on such subjects as conducting library and Internet research, using the Rutgers libraries, using IRIS, getting started on a research paper, and avoiding plagiarism. To access these services, click on "Faculty Services" on the left side of the library homepage ([www.libraries.rutgers.edu](http://www.libraries.rutgers.edu)), and then click on "Information for Faculty and Staff."

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