

Meeting Students' Needs Through Learning Styles

Think back to a class that you enjoyed or during which you learned the most. Was it interactive or lecture-based? Was the teacher the focus of the class, or did the teacher engage students in the lesson? Did the teacher answer students' questions, or was the teacher more interested in simply finishing the lecture?

While there are a few individuals who learn best through lectures, most students need to be engaged in learning to fully grasp the content. Students need to be challenged to think critically about new concepts instead of being presented with facts. Recently, there has been a push in education to move away from teacher-centered instruction towards a focus on meeting students' needs. In higher education, however, outdated lecture methods that do not meet all students' learning needs are still the primary teaching approaches.

To transition traditional classrooms into student-centered learning environments, educators must shift away from traditional lectures. Much of the information provided during lectures can be obtained by reading assigned chapters. If students can read a lesson on their own, then it needs to be left out of class time and assigned to students as homework. However, many educators feel that students won't do required readings. In my experience, students do not read homework if the instructor is going to lecture on the same material. However, students will make the effort to learn the material on their own if they know that doing so will enable them to participate in class.

Faculty members don't always have the option to completely stop lecturing. For example, there may be information that's not available by reading textbooks. In such cases, a short lecture can be given during class or prerecorded and posted on the internet. By posting lectures online, students have the option to review the material as many times as needed. Lectures made available outside of the classroom provide educators with more opportunities to interact with students during class to improve learning. This type of class is gaining popularity and is known as flipped, inverse, or blended learning. Using this teaching model, educators become facilitators of information, instead of providers of information, which allows them to help students master the content. Instead of using passive lectures, class time can be used to work on problems with students and answer questions about the course material. This teaching method helps to build relationships with students and to deepen their learning. It also allows the

teacher to adjust his or her teaching methods to account for different learning styles.

Learning Styles

Not all students learn best by sitting through lectures. For example, because I have an audio learning disability, I am unable to learn new concepts by listening to lectures and it is difficult for me to hear and write down information. (My teachers did not know about my disability, and I did not know enough about it at the time to sufficiently explain it.) In school, I had to read material before class and, if allowed, record lectures. If I was not provided with the material before class, I had to read it while the teacher was lecturing. I was often told by teachers to close my book and put it away. When a teacher senses that a student is not paying attention, his or her first thought is that the student is not listening to the lecture and therefore not learning.

Most students do not fully understand how they learn best. I did not understand my learning style until my freshman year in college when a professor had everyone in the class take a learning styles inventory. A learning style inventory is a test to determine your preference for learning using the main three senses: hearing, seeing, and touching. The professor explained that we need to understand how we learn so we could succeed in college. When I took the test, I scored zero percent in auditory learning. Once I saw the results, my past learning experiences finally made sense to me and I was able to use my other learning style strengths more effectively. As educators, we have a responsibility to teach our students how to learn. Having students take a learning style inventory is an easy way to get started.

A quick Google search results in various learning style tests. I suggest choosing one that works best with your class and your students. Many of the tests are free and are administered online. Some can be printed and include a scoring sheet with a description of each of the learning styles. I use an inventory that is administered online and tests for three of the main learning styles: visual, audio, and kinesthetic. There are other tests that measure more in-depth learning styles. Once students determine their primary learning style, they can do additional research based on the test results.

For years, I have used an online, 20-question learning styles test from EducationPlanner.org, and I never felt I needed more than that test to gain a better understanding of my students' learning needs. The online learning style test provides a percentage score for each of the three categories. A score of 50 percent or more in a category is an indication of a primary preference for that learning style. Some students

may score high in multiple categories and therefore have multiple learning styles.

After I assign the learning style inventory, I take a few minutes to speak with each of my students about their results and to answer questions. This discussion is extremely important in helping students do well in my class; it builds rapport and enables students to better understand how learning works, which is a new concept for many students. Using the test results, teachers can also provide students with recommendations about how to prepare for class based on their individual learning styles.

Surprisingly, I find that many of my community and technical college students are kinesthetic learners. Knowing this fact informs the way I teach. For instance, I used to lecture on a topic and then answer questions. I sometimes added a video or some other visual learning tool, but I rarely used hands-on activities. Once I saw the online inventory results, I added hands-on activities to as many lessons as possible. I'm not a kinesthetic learner; so, this was also a learning experience for me. After I found a few examples, it was easier for me to adapt my teaching style and add more of my own hands-on learning activities. Changing your method of teaching takes effort and research, but doing so is in the best interest of students. In the following paragraphs, I provide some of the methods I use to adapt my lessons to accommodate visual, audio, and kinesthetic learning styles.

Video – Visual

I provide my students with online videos to watch on the topic being discussed. I am not technologically savvy, so I use a website called **EDPuzzle** that pulls educational videos from a variety of sources such as YouTube, Khan Academy, and TED Talks. Because students find the videos informative and interesting, I typically use them when students seem to lose their focus on a topic or if the topic is exceptionally difficult. However, because I do not produce these videos, this method does not substitute for students reading the assigned chapter. The videos only provide supplemental learning.

To further reach visual students, I use a smartboard to show examples of the topic in multiple forms. For example, if I'm teaching a biology class, I show a cartoon image of a cell going through cell division, then I show an actual image of a cell and have my students label the various cell components.

Collaborate – Audio

Audio learners tend to do best in traditional lecture classrooms. Despite the ability to absorb information through lectures, audio learners also need an appropriate method for continuing their learning outside of the classroom. Audio learners benefit from the videos I post, but they do great in group collaboration as well. I like to randomly assign sections of a chapter to groups of students and have them present the material to the class. The students do not know before class which section they will get. So, consequently,

they must learn all of the material. The groups collaborate and make a presentation, although I rarely allow students to use PowerPoint unless they make it engaging.

Hands-On – Kinesthetic

Kinesthetic learners are the most neglected group in higher education. These students typically did well in school unless they had to sit still and learn. In researching about kinesthetic learners, I found that many of these students need to move their body to learn. I noticed my kinesthetic students would bounce their legs, chew on a pen, and have other habits that were bothersome to the other learners. Therefore, I rearranged my class and put all the kinesthetic learners together and, oddly enough, their moving about didn't bother each other. Simple solutions are easy to find once you better understand your students. To further help kinesthetic learners, I use pens and pencils to teach balancing chemical equations, stress balls to keep them focused while I lecture, and I provide opportunities for them to move around the room during class.

Conclusion

Decreasing the use of lectures is a big step for many educators, but it is one that is necessary in order to accommodate all students' learning styles. Minor adjustments like the ones described above have made a great impact on improving student outcomes. I would not have time for any of these activities unless I reduced my use of lectures. Since changing my teaching style, I've had the opportunity to join my students in their learning journey and more students have succeeded in my classes. Yet, the above ideas are not a cure-all for student success. I still have the same percentage of students who are simply uninterested in learning. I also have students who will do well without knowing their learning style because they have always been academically successful. Nevertheless, these teaching methods do help students who struggle to learn or who need additional help in order to succeed. My goal as an educator is to reach as many students as I can, and adjusting my teaching style so I interact with more students has done just that. It may not work for everyone, but I encourage you to find a teaching style that takes the focus away from you and places it on your students.

*What strategies do you use to reach different types of learners? Tell us in the comment section or on **Facebook!***

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