

# The Effect of Teaching Learning Styles on Student Performance

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## Focus Question:

How does the identification of student learning styles and the use of correlating study skills affect student performance?

- How does the use of study skills affect homework completion?
  - How does the use of study skills affect the efficiency of time spent on daily homework assignments?
- How does the use of study skills affect project management and completion?
  - How does the use of study skills affect test performance?
  - How has the use of learning style activities changed my teaching?

## Background:

Cary is an upper middle class community on the edge of the northwest suburbs of Chicago. The school consists of 840 7th and 8th grade students. We have high expectations for our students as a school. My students tend to fall into the low to average academic grouping and do not have a lot of learning strategies or study skills. At the beginning of the school year, my students were struggling and earning poor test scores in science, as well as in their other core subjects. Journaling, minute papers, and "targets" were used and showed some positive effects in my classroom. However, students were not showing much improvement in other classes. I felt this was because they were not applying the new learning/study skills from my class to their other classes. At that point, I decided to teach study skills in "isolation" in the hopes that students would realize they could use these skills in all of their classes. Different theories of learning styles were studied and Sarasin's perceptual model was chosen for this study. This model identifies the students as visual/verbal, visual/nonverbal, auditory, or kinesthetic learners.

## Methodology:

To conduct my action research, a class of 27 students were tested. The class met daily for 20 minutes to read and complete a variety of school activities. Students in the class were divided into study groups based on common learning styles and worked together at least twice a week.

A variety of data collection techniques was utilized, including group and individual interviews, student logs and surveys, as well as teacher and student journals. A second class of 30 students was not as extensively included in the treatment and was used for comparison.

## Research Design:

Based upon classroom observations and the research gathered during the review of literature, I chose to use Sarasin's model of learning modalities to classify and group the students as visual/verbal, visual/nonverbal, auditory, or kinesthetic/tactile learners. Students were introduced to the learning style theory, read the description of their own learning style, discussed new study techniques, and then were asked to apply these techniques. Students were expected to use the new learning/study techniques both in class and at home. Students met with their group each week to plan their studying for the next week. They discussed new techniques as well as past success or failures with old techniques. The goal was to facilitate the students in selecting the most appropriate projects and study habits for their individual needs now and in the future. New activities based on the needs of the students were created and integrated into the daily lessons and homework.

Learning Styles and Preferences	Strategies to Strengthen These Learning Styles
<b>Visual:</b> Visual learners learn best from what they see: diagrams, flowcharts, time lines, films, and demonstrations.	Add diagrams, Organize notes. Use visual organizers (graphs, charts, symbols, etc.), Color-code notes, Use visualization
<b>Auditory:</b> Auditory learners gain the most learning from reading, hearing spoken words, participating in discussions, and explaining things to others.	Attend lectures and tutorials, Ask questions, Read the textbook and highlight no more than 10%, Record lectures, Rewrite your notes and add what you missed from the tape, Recite or summarize information, Talk about what you learn, Work in study groups, Review information by listening to tapes you have recorded
<b>Kinesthetic/Tactile:</b> Kinesthetic/tactile learners need to experience knowledge through their own actions either by "doing" or by getting personally involved in their learning. They prefer quick paced instructions-- and instructors that keeps things moving.	Utilize as many senses as possible while learning. Go to labs, exhibits, tours, Try out example problems and questions, Study in a group, Relate the information to concrete examples as you read or listen in lectures, Think about how you will apply the information being presented, Pace and recite while you learn, Act out material or design learning games, Use flash cards with other people, Teach the material to someone else.

## Findings:

Initial data indicated that the visual/verbal students were performing at the highest levels, indicating that the current teaching styles and assignments compliment their learning style the best. The visual/nonverbal students reported the lowest achievement in all classes. Based upon this data, an effort was made to include more pictures and graphs in class lessons as well as teach this group how to "illustrate" the information that is presented in their classes to help them synthesis new concepts.

Quantitative data collected did not indicate that the implementation of the new activities was successful. There was little to no improvement in any of the groups' scores. Qualitative data, however, indicated that the students felt more confident in their learning and acquired skills they will continue to apply.