

## Reflection of Data Driven Decision Making

As educators, data is one of the most powerful tools we have to determine the effectiveness of our own teaching, as well as guide our future instructional decisions. Analysis of data not only gives us insight into how the class is doing, but also how students are developing and progressing individually. When teachers utilize data to support their instructional decisions, they are able to most effectively create teaching methods, address concerns directly, and advance overall understanding within students far quicker.

The primary place to derive data is from assessment. One form of this is using pre-assessment data to determine what students know prior to a new unit of instruction. During my student teaching, I had students complete a pre-assessment prior to my unit on time. I tested students' ability to recognize the types of clock and read and write time. Additionally, I tested the foundational skills needed to tell time, such as counting by 5's. From the data produced by the pre-assessment, I was able to see what foundational skills needed to be revisited prior to new instruction.

In addition to reviewing foundational skills as a whole class, I was also able to meet each learner where they were and address individual needs. This data allowed me to create small groups of students that shared their level of ability and previous knowledge. For example, I was able to meet with students who needed additional help with things such as counting by 5 and address this need. For students who may already be able to tell time to the nearest 5 minutes, I was able to provide them with appropriate

levels of content, such as elapsed time. Without this data, all students would be completing the same level of work despite having personal needs and level of ability.

While data is crucial to assessing a student's ability and making instructional decisions, this information can also be a great tool in assessing our abilities as instructors as well. Once the unit was complete, I assessed students again through a post-assessment that was identical to the first assessment. In addition to showing me how much students grew throughout the unit, it also provides me with an opportunity to assess my own instructional practices. Using the data from both the pre and post assessments, I can complete a two-tailed t-test. This provides me with a p-value based on the data I provide. If the p-value produced is less than 0.05, it is significant. Based on my data from this unit, my p-value was significant meaning the change in student's scores is due to instruction.