

David McNitt's Summary of Sessions Notes

Statistics is mathematics, mathematics is not statistics.

Studying statistics is like studying physics. Many mathematical techniques are used to explain or implement statistical (physics) concepts.

Statistics itself is a set of tools that provide the means to understand the quantitative nature of many situations and processes. The use of statistical tools help practitioners in many fields to draw conclusions based on measurements of quantitative information.

Students of statistics need to understand that these tools can be applied to actual situations in research, manufacturing, the laboratory, the workplace, economics, sports, etc.

Students learn when they get insights into concepts being taught. The gaining of these insights is promoted by the connections the students can make to knowledge and experience they already have.

Faculty who teach statistics can be most effective when they can reach the students where they are in terms of knowledge and experience. They can gain students attention and hold the interest when they can show where the concepts they are teaching are applied.

Teaching statistics can be more enjoyable when the teaching is proceeding () from a background of knowledge provided by people who use statistics and when the instructor can show students an end-use of the concepts.

The workshop is designed to put statistics into a context. This includes the field applications, the setting and the purpose.

Statistics is for the most part an inductive approach to solving problems and in this way differs from the primary deductive approach of much of the mathematics we teach - at least algebra and calculus.

The point of view of statistics, the nature of its conclusions, the assumptions, the limitations are all a part of its uniqueness as a field of study and set of tools.

The workshop plans to bring the world into the classroom through practitioners of statistics so that the teachers of statistics can help their students bring a knowledge of statistical problem solving into the world.

Technology plays a big role in using statistical tools. Throughout the workshop technology will be utilized to supplement projects, provide the means for enhanced computation and bringing the use of statistical techniques to their enlightening conclusions.

Statistics is everywhere throughout our lives. The workshop will pluck out from our commands lines a few instances, set them before us, and help us to examine them with the knowledge that we can then provide useable knowledge and experience for our students.