## An Introduction to Multi-Stratum Factorial Design

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Data quality is of paramount importance for the success of data analysis. Reliable results hinge on the high quality of data utilized. Consequently, experimental design plays a pivotal role in ensuring the collection of such high-quality data. This lecture aims to introduce a valuable technique for data collection known as "multi-stratum factorial design." To illustrate its significance, the lecture will commence by presenting the adverse outcomes stemming from data analysis with low-quality data. Subsequently, it will demonstrate how the implementation of multi-stratum factorial design can effectively overcome these challenges.