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Bridging the Gap: Interactive Discovery as a Booster for Preparing Industry-Ready Graduates

The GAISE recommendations (2025) are shaping best practices in teaching statistics, shifting the focus toward statistical thinking as a holistic investigative process. Despite related academic advancements, a persistent skills gap remains in preparing graduates for the complex unstructured problem-solving requirements of modern industry. This session proposes a framework where teaching methodology and tools work in tandem to transform statistical learning into an interactive discovery process.

We will emphasize examples of teaching best practices that prioritize an exploratory mindset over rote procedural verification. For instance, the presentation showcases how dynamic visualizations like the JMP Profiler enable students to intuitively navigate multi-factor relationships and communicate insights effectively. Furthermore, we highlight the pedagogical value of DOE simulations for experimental design, allowing learners to experience industrial complexity in a risk-free environment. The role of AI support is also discussed as a booster to lower technical barriers and accelerate conceptual mastery.

The session concludes with success stories of students who have "hit the ground running" in industrial roles. We will welcome an open discussion on the primary friction points in collaborative projects, illustrating how the right analytical environment acts as a booster for the statistical mindset required in Industry 4.0.

Special/ Invited session

Classification

Both methodology and application

Keywords

Skills gap, interactive discovery, AI support

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