範例

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# Establish Interactive Teaching to Optimize Pre-Employment Training and Effectiveness Analysis

# 建立互動式教學優化職前訓練及成效分析

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**Background:** Since the 21st century, rapid technological advancements and generational shifts transformed education. COVID-19, starting in 2020, particularly impacted medical education, reducing clinical internships. Uncertainty exists about interns' and PGYs' overall competency. We propose innovative interactive digital pre-employment training to assess its effectiveness compared to traditional non-interactive learning and its response to COVID-19 on TVGH interns and PGYs.

**Methods:** We employed digital assessment and analysis to evaluate the impact of optimizing interactive pre-employment training during the ongoing COVID-19 pandemic on the learning effectiveness of new medical interns and PGYs from August 1, 2022, to July 31, 2023. We assess various factors, including training type, age, gender, university attended, specialty, study time, and test time, that may influence students' learning by using statistical tests and multiple regression analysis.

**Results:** The interactive learning has a higher sore proportion (≥ 80 scores, 44/61 vs 24/56, $p = 0.015$), a higher examination score (84.55 ± 15.06 vs 80.24 ± 17.11, $p = 0.151$), longer reading time (18.82 ± 7.86 hrs vs 11.53 ± 4.18 hrs, $p < 0.001$), and lesser number of exam passes (1.30 ± 0.495 vs 1.57 ± 0.499, $p = 0.003$), than traditional non-interactive learning. Multiple regression analysis showed public medical school ($p = 0.016$), younger age (< 25.06 y/o, $p = 0.001$), and interactive digital learning (borderline $p = 0.290$) to have higher examination scores.

**Conclusion:** Interactive digital learning can effectively improve students' grades and enhance their learning experience and interest. In the future, we should explore various digital learning methods to further enhance students' learning and conduct research to determine which methods can best enhance student focus and progress.

Keyword：COVID-19, Interactive Learning, Intern, PGY (Post-Graduate Year), Medical Education