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### An Inquiry-Based Learning Approach to Improve Student Learning of Analytics Concepts

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# **An Inquiry-Based Learning Approach to Improve Student Learning of Analytics Concepts**

*Emergent Research Forum (ERF) Papers*

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## **Abstract**

Given the strong growth for big data and business analytics in industry, educational institutions have realized the growing need for analytics talent. Responding to this trend, accreditation bodies like AACSB (Association to Advance Collegiate Schools of Business) encourage business schools to incorporate analytical components across diverse disciplines ranging from finance to human resources. However, undergraduates usually perceive analytics as a dry, complex, and hard-to-tackle subject. In developing analytical skills, students should be able to explore on their own, make mistakes, and learn from them. Unfortunately, traditional ways of showing (in other words, pushing) the right approach to addressing/solving a problem not only hinders the development of analytical skills but also destroys the drive to explore. In this research-in-progress paper, we propose an inquiry-based learning (IBL) approach to improve student learning of analytics concepts. The central theme of our approach is to set up scenarios where students will make mistakes and motivate them to extract useful information from their mistakes to arrive at the right solution by themselves. We apply our approach to teaching a complex concept in the prescriptive part of business analytics. This approach can be adapted to teach courses like financial modeling, marketing analytics, operations management, to name a few, where problem-solving is complex and is critical to the student learning experience. We plan to empirically test the effectiveness of the teaching method in the spring 2020 semester. The plan is to create two student groups, where one group receives the traditional approach and the other, the IBL-based approach. Finally, both groups work on a new problem, and we compare the results from them. Preliminary results and implications for teaching and research will be presented at the conference.

## **Keywords**

Inquiry-based learning, teaching analytics, 5E instruction model.