

Chapter 7

The Holistic Framework for the Integration of Learning Analytics to Decision–Making Process in the Context of Stakeholder Theory

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ABSTRACT

Success in any process hinges on well-made decisions, but evaluating the effectiveness of these decisions can be challenging. Utilizing evidence-based decision-making enables informed choices based on data and experimental results, particularly in learning environments. Learning analytics—comprising static and dynamic data from learners—enhances decision-making and the overall learning process. All stakeholders, including learners, teachers, instructional designers, researchers, and administrators, should stay updated on trends in learning analytics to make effective decisions. This chapter presents a theoretical framework for using learning analytics in decision-making, framed within Stakeholder Theory. We will explore the intersection of assessment, learning analytics, and stakeholder theory, offering

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suggestions for its application in educational settings. This study aims to enrich literature on assessing and applying learning analytics from various stakeholder perspectives.

INTRODUCTION

This section will provide a detailed examination of the paradigm shift in higher education and its effects. Additionally, readers will learn about the reasons behind the emergence of concepts such as Big Data, Data Analytics, and Learning Analytics in higher education.

Higher education institutions operate within highly competitive and complex environments, facing pressure to meet both national and international objectives while consistently enhancing their educational and training quality policies in response to the evolving social landscape. The growing complexity of higher education activities and the demand for quality education services necessitate a comprehensive reevaluation of these challenges (Hart & Coates, 2011; Williams, 2016). Concurrently, the digital transformation occurring globally in higher education, along with the emergence of new technologies, has significantly influenced the interplay between learning activities and technology. Over the past decade, the advancement of flexible and distance learning environments has transformed the understanding of access to education and training programs. Consequently, higher education institutions are designing environments that foster innovative learning experiences and technologies tailored to the needs of learners, ultimately helping to reduce institutional operating costs. These developments have spurred research into how higher education institutions can adapt efficiently and effectively to these changes. A critical requirement for this adaptation is the ability to make informed decisions based on the meaningful information derived from processing the raw data available within these institutions. This generation of meaningful information can also be utilized to assess how effectively higher education institutions manage their operational processes in relation to their institutional and social goals (Clarke et al., 2013; Daniel, 2015).

In higher education institutions that have expanded in response to the COVID-19 pandemic, digital technologies are capturing the attention of decision-makers, learners, parents, and stakeholders invested in technological development for the sector. The widespread adoption of digital technologies has amplified the significance of digital data, particularly in its collection, analysis, and application. The rising trend of big data in education has garnered considerable interest from researchers and decision-makers alike. Universities have started to leverage learning analytics, using learner data to inform decision-making across institutional and pedagogical dimensions.

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