



## Chapter 9

# Exploring the Evolution and Impact of Learning Analytics in a Moroccan Context: A Case Study

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### ABSTRACT

*The chapter evaluates the integration of learning analytics (LA) into Morocco's education system, a task marked by its inherent complexities. A detailed exploration of a case study involving the Provincial Directorate of Education in the Hay Hassani region aids this endeavor. LA's implementation and implications were critically examined, drawing upon the collected data, survey results, and interviews with key stakeholders. A key finding, the Mehnaty project, emerged as a remarkable LA application in the Moroccan context. The analysis indicates that this model, despite logistical and financial constraints, successfully captured age-and-location-based learning requirements, thus informing the design of a more contextually compatible curriculum. This endeavor confirms that implementing LA in the Moroccan educational landscape is viable, albeit with some challenges. The outcome underscores the importance of context in the utilization of LA, advocating for a tailored approach that takes local realities into account to ensure effective learning outcomes.*

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## 1. INTRODUCTION

The investment in Learning Analytics rest within three issues persisted over the lifespan of the technological development inside the Moroccan educational system (Housni, Namir, Talbi, & Chafiq, 2017):

- Learning is rarely measured at the levels desired by the decision-makers in the organization (Furtado, Souza, Lima, & Oliveira, 2021).
- Most learning activities lacks alignment to the realities of the execution (Xie, Chen, Liu, Kong, & Cao, 2021).
- Learning is considered wasted because learners are not professionally prepared to tackle issues appropriately (Housni, Talbi, & Namir, 2021).

In this prospective this paper finds its roots, aiming at applying Learning Analytics inside the Moroccan environment.

Learners are growing impatient to the traditional learning frameworks because they are networked and empowered by technology that the organization in hole do not take full advantage (Duggal, Gupta, & Singh, 2021).

Technology is the discipline to apply scientific knowledge and skills in an experimental setup to solve real-world problems. However, Applying it does not mean solving (Roll & Winne, 2015).

Therefore, the new application should guide the organization to relocate their resources and converge into creating an effortless learning experience. Those decisions should be based on data that relates to the realities of applications (Chafiq, Housni, & Moussetad, 2019).

The organization aims should be generating an ecosystem for Learning Analytics that apply on: Methods of learning and teaching, created standards, organizational culture, educational content and technological tools . Moreover, new roles should be established such as Learning Engineers and Learning Data Scientists (Chafiq & Housni, 2018).

The complexity of the digitization inside an educational system that have been growing more furiously than ever because of the COVID-19 pandemic dwells in challenging interconnections issues between multitude of systems (Mohammed et al., 2019).

The concerns converge on the Learning Analytics of the instructor/learner relationship environment and the numerical curriculum that adhere to the administrative orientations .

In this paper, the covered subject is Learning Analytics and its applications inside the Moroccan hybrid educational system. In this focus the study converges toward:

1. The importance of the subject matter as an advantageous research opportunity to quantify qualitative measures of learning by the use and integration of Big Data and Learning Management Systems.
2. The technological advancements of Data Mining and its important role in building decision process to describe, prescribe, diagnose and predict environmental outcomes and their influence on learning.
3. Consideration of the punctual needs and requests for analytic on the basis of contextual truths and taking into action the legal and ethical practices for the benefit of all but few.

Furthermore, the digitization process of education goes beyond teachers and students to support resource management systems and nurturing activities. The exigencies of online identity presence and

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