Cost-Benefit Analysis of Transitioning from Traditional Instructor-Led Training to Computer-Based Training

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1. Overview

This document outlines the cost-benefit analysis involved in transitioning select training modules from traditional Instructor-Led Training (ILT) to Computer-Based Training (CBT). It aims to identify the redevelopment costs, calculate the operational savings, and determine the break-even point, while also considering the effect on learning quality and participant experience.

2. Methodology

The analysis comprises three primary sections: determining the costs associated with redeveloping CBTs, estimating the operational savings gained by switching to CBTs, and evaluating the impact on learning quality and experience.

2.1. Redevelopment Costs

2.1.1. Definition of Variables

- **Trainer Cost per Hour (TCH):** The hourly rate for trainers involved in redevelopment, which is constant across all modules.
- **Number of Hours to Redevelop (NHR):** The estimated number of hours required to convert *ith* ILT modules into CBTs.

The total redevelopment cost (TRC) is calculated as:

$$TRC = \sum_{i=1}^{n} NHR_i TCH$$

2.2 Savings from Transitioning to CBTs

2.2.1. Definition of Variables

- **Number of ILT Modules Converted (NMC):** The total number of ILT modules transitioning to CBTs.
- **Hours per ILT Module for the ith module (HMi):** The duration required to deliver the ith ILT module.
- **Total Cost per Hour (TCH):** The hourly rate for trainers involved in redevelopment, which is constant across all modules. The total savings (TS) considering each module's specific hours and cost savings is calculated as:

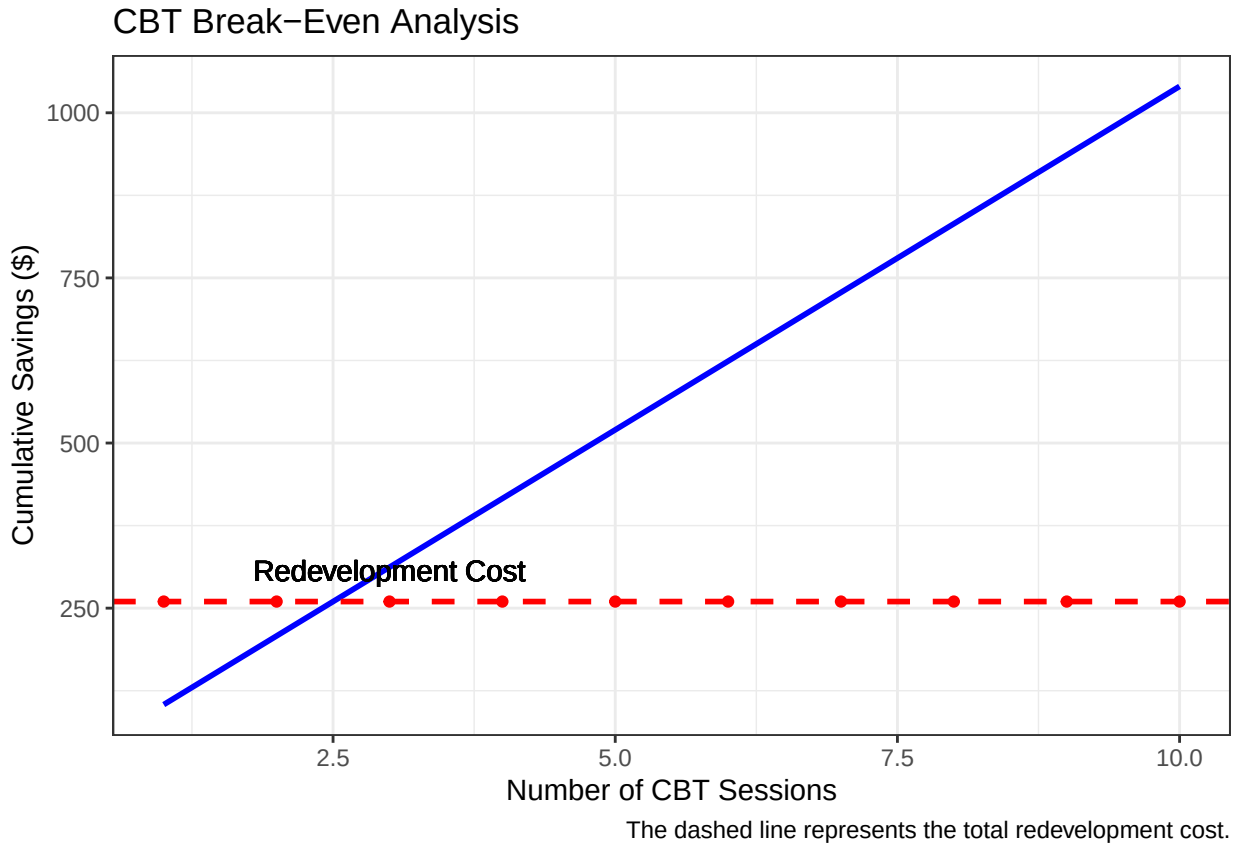
$$TS = \sum_{i=1}^{NMC} HM_i TCH$$

2.3 Break-Even Point Calculation

The break-even point calculation (BEC) is the total redevelopment cost divided by the total savings, which is calculated as:

$$BEC = \frac{TRC}{TS}$$

This indicates the number of courses that need to be delivered in the CBT format to recover the redevelopment cost.



The chart demonstrates that the break-even point is reached after the third CBT session.From there, the cumulative savings continue to increase exponentially as more CBT sessions are delivered.

3. Impact on Learning Quality and Experience

Qualitative feedback will be gathered post-training via a survey to assess the impact on learning quality and experience. The survey will be administered to the participants of the CBTs and the results will be analyzed and a comparison analysis conducted with previous ILT-based survey data to determine the impact on learning quality and experience.