



Construction Management and Economics >

Volume 23, 2005 - [Issue 4](#)

532 | 52 | 0
Views | CrossRef citations to date | Altmetric

Original Articles


Using linear model for learning curve effect on highrise floor construction

J. P. Couto & J. C. Teixeira Corresponding author

Pages 355-364 | Received 18 Jul 2003, Accepted 15 Dec 2004, Published online: 17 Feb 2007

🗨️ Cite this article 🔗 <https://doi.org/10.1080/01446190500040505>

Sample our
Economics, Finance,
Business & Industry Journals
>> [Sign in here](#) to start your access
to the latest two volumes for 14 days



 Full Article  Figures & data  References  Citations  Metrics

 Reprints & Permissions

[Read this article](#)

 Share

Abstract

The evolution of repetitive scheduling methods led to the introduction of the learning concept in construction planning. It is common knowledge that performing the same activity repeatedly, and in the same conditions, takes less and less time as the activity is repeated (Gates and Scarpa, [1972](#)). This phenomenon is clear in many construction activities and is known as learning experience or learning effect. The increase in productivity is mainly due to the increasing knowledge acquired by work repetition. Graphic representation is through a learning curve that admits duration decreases as the activity is repeated, according to a predictable and constant learning rate. The Linear Model of logarithmic coordinates ($\log_{10}Y = \log_{10}A - n\log_{10}X$) was applied to two repetitive construction processes, frequently used in Portuguese construction. The intent was to examine its applicability and efficiency in predicting future performances,

and the interest in incorporating the model in new planning methodologies for repetitive construction. In both cases, learning processes were created.

Keywords:

Learning effect

learning curve

linear model

planning construction

models

repetitive construction

Related research

People also read

Recommended articles

Cited by
52

[Revisiting the applicability of learning curve theory to formwork labour productivity >](#)

Abdulaziz Jarkas et al.

Construction Management and Economics

Published online: 13 Jun 2011

Information for

[Authors](#)

[R&D professionals](#)

[Editors](#)

[Librarians](#)

[Societies](#)

Opportunities

[Reprints and e-prints](#)

[Advertising solutions](#)

[Accelerated publication](#)

[Corporate access solutions](#)

Open access

[Overview](#)

[Open journals](#)

[Open Select](#)

[Dove Medical Press](#)

[F1000Research](#)

Help and information

[Help and contact](#)

[Newsroom](#)

[All journals](#)

[Books](#)

Keep up to date

Register to receive personalised research and resources by email



Sign me up



Copyright © 2026 Informa UK Limited [Privacy policy](#)

[Cookies](#) [Terms & conditions](#) [Accessibility](#)

Registered in England & Wales No. 01072954
5 Howick Place | London | SW1P 1WG



Taylor & Francis
by informa