Learning Objects and Instructional Design

Contents

Acknowledgements ........................................................................................................................................... ix

Preface  

Alex Koohang and Keith Harman ......................................................... xi

Section I: Theory, Granularity and Reusability

Chapter 1:  

Linking Instructional Theories and Instructional Design to Learning Objects: A Proposed Conceptual Framework 

Christine A. Hudak........................................................................ 1

Chapter 2:  

Embedding Instructional Design with Learning Objects 

Ian C. Reid ................................................................................. 39

Chapter 3:  

A Taxonomy Showing Relationships between Digital Learning Objects and Instructional Design 

Catheryn Cheal and Balaji Rajagopalan ................................. 59

Chapter 4:  

Instructional Design and Pedagogical Considerations For the Ins-and-Outs of Learning Objects 

Grace Lim..................................................................................... 89

Chapter 5:  

Granularity and Reusability of Learning Objects 

Ismar Frango Silveira, Carlos Fernando de Araújo Jr., Luiz Henrique Amaral, Ivan Carlos Alcântara de Oliveira, Juliano Schimiguel, Manuel Fernández-Paradela Ledón, and Maria Alice Grigas Varella Ferreira...... 139

Chapter 6:  

Ontological Sharing, Granular Visualization and Reusability of Learning Objects 

Chien-Sing Lee .............................................................................. 171
Section II: Applications

Chapter 7: Collaboration and Community Building: Extending Design Processes for Learning Objects to Foster Reusability
   Tracy Penny Light, Kevin Harrigan, Liwana Bringelson, and Tom Carey ................................................................. 197

Chapter 8: Learning Objects and Instructional Design: From Contents to Activities
   Manuel Caeiro-Rodriguez.................................................. 219

Chapter 9: Structure of Storyboard for Interactive Learning Objects Development
   Pollyana Notargiacomo Mustaro, Ismar Frango Silveira, Nizam Omar, Sandra Maria Dotto Stump .................. 253

Chapter 10: Approaches to Learning Object Oriented Instructional Design
   Martin Memmel, Eric Ras, Klaus P. Jantke, and Michael Yacci ................................................................. 281

Chapter 11: Learning Technology Standards and Inquiry-Based Learning
   Ola Berge and James D. Slotta................................. 327

Chapter 12: A Blended Model of Instructional Design for Learning Objects
   Katy Farrell and Allie Emigh Carr .......................... 359

Chapter 13: Applying Instructional Design Theory When Using Learning Objects
   Marcel M. Robles...................................................... 407

Chapter 14: A Framework for Interoperable Learning Objects for E-Learning
   Dianne Edwards, Shri Rai, Rob Phillips, Lance C. C. Fung ................................................................. 437
Contributors

Authors ........................................................................................................471
Editors ........................................................................................................481
Editorial Review Board ........................................................................483

Index ........................................................................................................487