Contents

Website Contents xvi
Figures, Tables, and Exhibits xvii
Foreword xxv
About the Authors xxix
About the Contributors xxxiii

Chapter 1 How to Read and Use This Fieldbook 1

Introduction 1

Key Definition 2

Why This Book? 2

What's Coming in This Book 5

The Best Way to Read This Book 7

Continuing the Discussion 9

SECTION I: Getting Started

Chapter 2 Why Games, Gamification, and Simulations for Learning? 13

Chapter Questions 13

Introduction 13

viii

Wrong Reasons 14

Right Reasons 20

Questions to Ponder 31

Ensuring Success 31

Key Takeaways 33

Chapter 3 Game, Gamification, or Simulation: Which Is Best, When, Why? 35

Chapter Questions 35

Introduction 36

Games 37

Gamification 54

Simulations 58

Selecting the Right ILE 63

Key Takeaways 65

Chapter 4 Critical Questions for Creating an Interactive Learning Event 67

Chapter Questions 67

Introduction 67

Foundational Questions 69

Practical Questions 73

Scoring and Assessment Questions 75

Game Play Questions 79

Key Takeaways 81

SECTION II: Basic Elements

Chapter 5 Foundational Elements 89

Chapter Questions 89

Introduction 89

Feedback 90

Constructs 95

Challenge 98

Story 99

Key Takeaways 100

Chapter 6 The Importance of Narrative/Context/Story 103

Chapter Questions 103

Introduction 103

Overview of Storytelling 104

Elements of Storytelling 106

How Is Storytelling Different in ILEs? 107

The Goal-Based Scenario 109

The Role of Reality 110

The Predictable Unexpected 112

Architecting Your Story 112

Key Takeaways 115

Chapter 7 Making the Case 117

Chapter Questions 117

Introduction 117

Research-Based Justification 118

Return on Investment Justification 127

- 1. Identify the Need 129
- 2. Determine Sponsor's Goals 132
- 3. Decide How to Measure 133
- 4. Dollarize the Measurements 134
- 5. Conduct a Baseline Assessment 134
- 6. Implement and Deliver the Game, Gamification, or Simulation 136
- 7. Gather Post-Learning Data and Data from the Control Group 136
- 8. Determine the Return 137

Stealth Justification 139

Key Takeaways 140

Chapter 8 Managing the Process 141

By Jim Kiggens

Chapter Questions 141

Introduction 141

The Process Required to Produce an Educational Game 142

Tips for a First-Time Producer 170

Key Takeaways 176

SECTION III: Design Considerations

Chapter 9 Where Do Find Ideas 179

Chapter Questions 179

Introduction 179

Play Games 180

Brainstorming Techniques 184

Shazam Session 191

Sharing Output 193

Key Takeaways 197

Chapter 10 Games 199

Chapter Questions 199

Introduction 199

Designing a Game From Start to Finish 200

Wireframing 209

One-Page Design 211

Paper Prototyping 212

Storyboards 214

Design Document 216

Key Takeaways 217

Chapter 11 Gamification 219

Chapter Questions 219

Introduction 219

Controversial Nature of Gamification 220

Structural Gamification 224

Avoid Learners Gaming the System 235

Content Gamification 237

Key Takeaways 246

Chapter 12 Simulations 249

Chapter Questions 249

Introduction 249

Why Simulations Are Valuable for Learning 251

Designing a Simulation 252

The Illusion of Complexity 254

Using Flowcharts 256

Storytelling for Simulations 258

Creating Decisions for Simulations 259

Creating Simulation Feedback 263

Simulation Design Tool 264

Key Takeaways 269

SECTION IV: Development

Chapter 13 Technology Tools 273

By Helmut Doll

Chapter Questions 273

Introduction 273

Developing an Interactive Learning Experience 274

Development Terms 275

Template-Based Authoring Tools/Arcade-Style Games 276

Game Engines 278

Other Development Tools 280

Mobile Games 282

Adding Leaderboards or Badges 283

Key Takeaways 284

Chapter 14 Storyboarding 287

By Kevin Thorn

Chapter Questions 287

Introduction 287

Why Storyboarding Is Important 290

The Storyboarding Process 293

Storyboarding in Action 294

Storyboarding Simulations 298

Storyboarding Techniques 300

Key Takeaways 300

SECTION V: Case Studies

Chapter 15 The Knowledge Guru 305

By Sharon Boller

Background 305

The Challenge 306

Why Game or Gamification? 307

Making the Case 309

The Solution 309

The Benefits and Results 316

Lessons Learned 317

Chapter 16 A Board Game: MPE 319

By Robert Bell

Background 319

The Challenge 320

Why a Game? 321

Making the Case 323

The Solution 323

The Benefits 329

The Results 329

Lessons Learned 330

Chapter 17 Mobile Gamification: Mobile Cricket U 333

By Robert Gadd

Background 333

The Challenge 334

Why Gamification? 336

Making the Case 337

The Solution 339

The Benefits 343

Lessons Learned 344

Chapter 18 Serious Game: Learning to Negotiate 347

By Bryan Austin

Background 347

The Challenge 348

Why a Game? 349

The Solution 350

The Benefits 355

The Results 355

Lessons Learned 356

Chapter 19 Structural Gamification for On-Boarding Employees 359

By Mohit Garg

Background 359

The Challenge 360

Why Gamification? 360

Making the Case 361

The Solution 363

The Results 365

Summary 368

Lessons Learned 368

Chapter 20 Medical Simulation 371

By Kevin R. Glover

Background 371

The Challenge 372

Why a Simulation? 375

Making the Case 378

The Solution 379

The Results 387

Lessons Learned 388

Chapter 21 Financial Game-Based Learning 391

By Andrew Hughes

Background 391

The Challenge 392

Why a Game? 392

Making the Case 392

The Solution 393

The Benefits 397

The Results 398

Lessons Learned 398

Chapter 22 Sales Training Game: An Avaya Case 399

By Anders Gronstedt

Background 399

Why a Game-Based Simulation? 400

The Solution 400

Benefits and Results 404

Lessons Learned 404

Glossary 405

Notes 417

Index 423

About ASTD 441

Website Contents

The following materials are available for download from www.wiley.com/go/kappfieldbook password: professional

Chapter Two

Case Study: Deloitte Leadership Academy Getting Started Worksheet

Chapter Three

Games and Blooms Taxonomy Games and Type of Knowledge Games and the Affective Domain Games and Psychomotor Skills

Chapter Four

Critical Questions

Chapter Six

Story Design Worksheet

Chapter Eight

Game Building Model Sample Game Design Template

Chapter Ten

Best Practices
Pitfalls to Avoid
Pro-Social Gaming

Chapter Eleven

PepBoys Case Study