

ROUTLEDGE FOCUS



GAMIFICATION AND DESIGN THINKING IN HIGHER EDUCATION

Case Studies for Instructional Innovation in
the Economics Classroom

Carmen Bueno Muñoz,
Núria Hernández Nanclares,
Luis R. Murillo Zamorano
and José Ángel López Sánchez

ROUTLEDGE

Focus

Contents

<i>Acknowledgments</i>	<i>viii</i>
1 Introduction	1
2 Gamification in Higher Education	6
2.1 Introduction	6
2.1.1 Definition	6
2.2 Motivational and Educational Theories	8
2.3 How to Gamify	10
2.3.1 Analysis	10
2.3.1.1 Analysis of Future Participants	12
2.3.2 Design and Development	15
2.3.2.1 Elements	16
2.3.2.2 Duration	22
2.3.2.3 Platforms	23
2.3.3 Implementation and Evaluation	25
2.4 Gamification and Other Methodologies	26
2.4.1 Flipped Classroom	26
2.4.2 Project-Based Learning	27
3 Design Thinking in Higher Education	37
3.1 Introduction	37
3.1.1 What Is Design Thinking?	38
3.1.2 History of Design Thinking	39
3.1.3 Models of Design Thinking	39
3.2 Design Thinking in Higher Education	41
3.2.1 What Students Should Learn for the 21st Century	41

3.2.2	<i>Why Design Thinking in Higher Education</i>	42
3.3	<i>How to Plan a Design Thinking Process in Higher Education</i>	43
3.3.1	<i>Before Beginning</i>	43
3.3.2	<i>Planning to Teach Using Design Thinking</i>	45
3.3.3	<i>A Road Map of the Design Thinking Process</i>	46
3.3.4	<i>Examples of Design Thinking in Higher Education</i>	47
3.3.4.1	<i>Example 1: "What Can This International Organization Do for You?"</i>	47
3.3.4.2	<i>Example 2: "Our School Would Be Much Better If . . ."</i>	51
3.4	<i>Higher Education, COVID-19, and Design Thinking</i>	52
3.4.1	<i>Remote Learning</i>	53
3.4.2	<i>Equity in Education</i>	54
3.4.3	<i>Community Building</i>	54
3.4.4	<i>Design Thinking as a Tool for the Future</i>	55
4	Gamification and Design Thinking Applications in Higher Education	62
4.1	<i>Introduction</i>	62
4.2	<i>Gamification and Design Thinking in the Literature</i>	62
4.3	<i>How to Gamify an Activity Based on Design Thinking in Higher Education</i>	63
4.4	<i>Examples</i>	66
4.4.1	<i>Example 1: "What Can This International Organization Do for You?"</i>	66
4.4.1.1	<i>Analysis</i>	66
4.4.1.2	<i>Design and Development</i>	66
4.4.1.3	<i>Implementation and Evaluation</i>	68
4.4.2	<i>Example 2: "Our School Would Be Much Better If . . ."</i>	71
4.4.2.1	<i>Analysis</i>	71
4.4.2.2	<i>Design and Development</i>	71
4.4.2.3	<i>Implementation and Evaluation</i>	73
5	Ethical Issues in Gamification and Design Thinking in Higher Education	77
5.1	<i>Introduction</i>	77
5.2	<i>Ethics and Higher Education</i>	77
5.3	<i>Ethics and Gamification</i>	81
5.4	<i>Ethics and Design Thinking</i>	86
6	Conclusion and Final Reflections	95
	<i>Index</i>	101