

Contents

- 1 Introduction: Demand and Reality 1**
 - 1.1 The Technological Genesis of Driving Simulation 2
- 2 Teaching and Training with Simulators 5**
 - 2.1 Drivers, Vehicles and Errors 5
 - 2.2 Developing a Model 12
 - 2.3 Training Course Design 14
 - 2.3.1 Aims and Subject Matter of Training Courses 17
 - 2.3.2 Training Concept 18
 - 2.3.3 Description and Analysis of Activity 20
 - 2.3.4 Evaluation and Effectiveness 22
 - 2.4 Training Media 23
 - 2.4.1 Simulators 24
 - 2.4.2 Definitions 25
 - 2.4.3 Developing a Model, Transfer and Validity 27
 - 2.4.4 Driving Simulators: Setup and Requirements 32
 - 2.4.5 Typology of Driving Simulators 37
 - 2.4.6 Advantages and Limits of Simulators 45
- 3 Basic Smart Truck Driving Training Program 49**
 - 3.1 Targets 51
 - 3.1.1 Driving Skills 52
 - 3.1.2 Legality 53
 - 3.1.3 Safety Consciousness 53
 - 3.1.4 Solidarity 54
 - 3.1.5 Morality 54
 - 3.2 Analysis of CE Driver Training Plan 55
 - 3.3 New Training System 61
 - 3.3.1 Extensions to Training Course 64
 - 3.3.2 Computer-Assisted Instruction 65

4	Smart Driver Training Programs	67
4.1	Driving Tasks in Public Buses, Hazardous Material and Packaged Goods Transport	67
4.1.1	Selection of Critical Situations	69
4.2	Aims and Concept of the Training Course	72
4.3	Economical Driving	75
4.3.1	Learning Strand and Route	76
4.3.2	Implementation	80
4.4	Anticipatory Driving Technique	80
4.4.1	Learning Strand and Implementation	81
4.5	Frustration-Resistant Driving and Self-Control	82
4.5.1	Learning Strand, Disruption Scenarios and Situational Events	83
4.5.2	Implementation	88
4.6	Evaluation of Training Results	91
4.6.1	Notes on Evaluating the Values	98
4.7	Example Schedule and Simulators	101
4.8	Group Training	102
4.8.1	Introduction to the Program of the Day	105
4.8.2	Sensitization for the Topic	105
4.8.3	Dangers of the Job and Improving Safety	106
4.8.4	Communication	108
4.8.5	Stress and Stress Management	112
4.8.6	Integration of Training Units	113
4.9	Questionnaires	114
4.9.1	Assessment of the Day's Training	114
4.9.2	Assessment of the Trainer	115
4.9.3	Semantic Differentials for Driving Simulator and Driving Tasks	116
4.9.4	Preparation	118
4.9.5	Private and Professional Situation	119
4.9.6	Questionnaire on Attitude toward Road Traffic Safety and Driving Style	119
4.9.7	Follow-up and Training Needs	121
4.10	Notes on Trainers' Qualifications, Briefings and Replays	122
5	Concluding Remarks	129
6	Bibliography	135

Smart Driver Training Simulation

Save Money. Prevent.

Käppler, W.D.

2008, X, 142 p. 48 illus., Hardcover

ISBN: 978-3-540-77069-5