Index

A
Action Planned Theory 216
age-related changes
  in ability to integrate information elements 41
  in active processing 36
  in cognitive speed 39
Age-Related Macular Degeneration (ARMD) 251
  aging 85
  and distributed cognition 63
Alzheimer’s Disease (AD) 163
Associative Deficit Hypothesis (ADH) 41
Atkinson and Shiffrin’s Memory model 144
attentional control 21-22

B
Baddeley and Wilson 7
Baddeley’s Model of Working Memory 145
borrowing and reorganizing principle 85

C
caregiver interventions 265
caregivers 264
  recruitment 267
chronic disease management framework 252
chronic diseases 251
Clinical Decision Support Systems (CDSS) 229, 244
cognition 83
Cognitive Failure Questionnaire (CFQ) 169, 182
cognitive functioning 87, 168
Cognitive Load Theory (CLT) 34-35, 84, 146
Cognitive Theory of Multimedia Learning (CTML) 35
coherence principle 150
collaboration 61
communication media 62, 70
Concept Shifting Test (CST) 169
crystallized intelligence 126

d
DAI system 254
declarative memory 2
dementia 264
dissociation effects 4
distributed cognition
  and aging 63
domain-general skills 12
domain-specific skills 10
dual-channel model 90
Dynamic Visualisations (DVs) 43

E
eCAALYX project 238, 240
e-Health 230
  and patient safety 235
  recent trends 232
e-Health interventions
  examples 236
  for older adults 234
elderly learning/training
  heuristic approach 153
Electronic Health Records (EHRs) 229, 244
Electronic Medical Records (EMR) 67
environmental linking and organizing principle 85
episodic memory 3, 192
equipotentiality principle 87
error-free learning 7
evency technologies 106
explicit memory 2
Index

F
familiarity 86
fluid intelligence 126

G
Gabor elements 38
grounding 62
guidance fading 94

H
healthcare
for older adults 230
health curriculum implementation 253
Health Information Technology (IT) 60, 63
heuristics 152, 159
historical contextualism 128
human cognitive architecture 83

I
implicit memory 3
individual differences principle 151
Inferior Frontal Cortex (IFC) 45
Inferior Parietal (IPC) 45
Informatics for Diabetes Education and Telemedicine (IDEATel) 233
Information and Communications Technology (ICT) 9, 233
information store principle 85
inhibit information flow 89
instructional design principles 84
intervention design 267
intervention study 166
IT-based tools 69

K
Knowledge in the Head (KiH) 108
Knowledge in the World (KiW) 108

L
Letter-Digit Substitution Test (LDST) 169
Lifespan Developmental Perspective 126, 130-131, 134
limited working memory 146
Long-Term Memory (LTM) 2, 35, 84, 145
long-term working memory 84

M
mass action principle 87
Mayer’s Theory of Multimedia Learning 149
seven principles 150
memory complaints 192
metacognition 112
good design through 116
Mirror Neuron System (MNS) 45
mnemonics 193
mnemonic training 197
modality effect 90
modality principle 150
Motor Choice Reaction Time test (MCRT) 169

N
narrow limits of change principle 85
National Institute on Aging (NIA) 133
National Library of Medicine (NLM) 133

O
older adults
e-Health interventions 234
e-Health trends 232
everday use of ICT 173
healthcare for 230
ICT benefits 162
ICT disadvantage 162
ICT risks 163
Internet use constraints 126, 129
Internet use opportunities 124, 126, 131
user experience 215

P
Paas’s Subjective Cognitive-Load (SCL) 148
participant resources 62
patient-centered care 60
Patient Health Records (PHR) 60
patient portals 64-66
patient safety 235
PatrolSim 23
Personal Health Records (PHR) 66, 74
phonological loop 145
plasticity 127
Prefrontal Cortex (PFC) 21
pretraining 194
priming 3-4, 192
dissociation in 5
Index

principles of multimedia design 149
prior knowledge measurement 111
proceduralization 2
procedural memory 2, 192
procedural memory use 200
procedural skills 5
prospective memory 3
R
randomness as genesis principle 85
rapid population aging 82
recollect 86
redundancy effect 92
redundancy principle 151
Remote Care Delivery Technologies (RCDT) 249-250, 257-258
remote communication 62
Repetitive Strain Injury (RSI) 175
robotics 244
S
SCORE project 266, 269
Selective Optimization with Compensation (SOC) model 128, 131, 213
semantic memory 3, 192
Serial Reaction Time (SRT) task 5-6
Shah and Oppenheimer’s Framework for Effort-Reduction for Heuristics 152
short-term memory 144
situation models 62
Social Networking Sites (SNS) 180
spatial contiguity 36
spatial contiguity principle 150
split-attention effect 36
Stroop Color Word Test (SCWT) 169
Stroop task 37
subjective memory assessment 194
subjective physical functioning 174
successful aging 163, 214
Superior Temporal Sulcus (STS) 39
T
tele-HEART program 255
telemedicine 233
telephone-based interventions 265
temporal contiguity principle 150
The Multimodality of Gesture-Speech Instruction 44
traditional mnemonic 196
U
use it or lose it 163
V
Visual Verbal Learning Test (VVLT) 169
visuo-spatial sketchpad 145
W
worked examples 93
Working Memory (WM) 34, 83, 90, 145