ability, motivation, and opportunity (AMO) framework, 313
Academic Literacies perspective, 272–273, 277
academic outcomes, in tertiary education, 268
Academic Socialisation Model, 273
accuracy, in peer feedback, 419
achievement, peer feedback as in influence on, 426
achievement emotions, 556
ACT Tessera Social and Emotional Learning Assessment System, 250–257
active engagement, with feedback. See also proactive recipience
application of standards, 535
collective provision of training, 536–537
feedback delivery, 536–537
grade-free feedback, 544–548
internalization of, 535
lack of strategy in, 547–548
moderating factors in, 538–545
content of feedback, 541–543
cost of feedback, 543–545
delivery of message, 540–541
future research on, 545
message characteristics, 540–543
for receivers of feedback, 539
for senders of feedback, 539–540
trust as, 539–540
research on
for moderating factors, 545
overview of, 532–533
sustainable monitoring, 535–537
usability of feedback, 546–547
Adaptive Character of Thought (ACT-R) theory, 362–363
adaptive experts, 490
adaptive feedback, 138
administrative skills of planning, 326
adult learning theory, 325–326
advanced beginners, classroom feedback for, 39–40
through mixed-level models, 39
aesthetic creativity, 580
affective computing, 371
affective mechanisms, of self-assessment, 400–401
affective pre-assessments, 443
affordances, of TEF, 340–350
age, instructional feedback and, 594–596
agency, in game-based assessment, 358
AI. See Artificial Intelligence
Alqassab, Maryam, 418–420
American Educational research Association, 21
AMO framework. See ability, motivation, and opportunity framework
animals, instructional feedback for. See also operant conditioning
scope of, 505
anonymity, in peer feedback, 421, 423
applied music teachers, 227–228
applied studies, 7
applied studio settings, instructional feedback in, 226–231
by applied music teachers, 227–228
master-apprentice model, 226
argument, 84–85
arrested development, 29, 46
artifacts, in classroom, 198–205
adaptation of, 212–213
characteristics of, 198–205
in DEMFAP coding system, 198
design of, 212–213
efficiency of, 199, 205–206
feedback management with, 197–213
during class, 214
implementation of, 214–215
outside class, 197–214
goals of, 198
purpose of, 198, 201–203
relationships among, 198–199, 203–205
rubrics of, 199, 202–203
selection of, 212–213
types of, 200, 211
Artificial Intelligence (AI), 43, 337
Assessing Educational Achievement (Black, H.), 21–22
assessment approaches, to feedback. See formative assessment approach; summative assessment approach
assessment feedback, in primary schools
adaptive, 138
cognitive development theory and, 123
discursive, 138
<table>
<thead>
<tr>
</tr>
</thead>
<tbody>
<tr>
<td>Holistic Assessment discourse, 126–130</td>
</tr>
<tr>
<td>PERI Committee, 126–127</td>
</tr>
<tr>
<td>reporting systems, 127</td>
</tr>
<tr>
<td>teachers’ use of, 127–130</td>
</tr>
<tr>
<td>interactive, 138</td>
</tr>
<tr>
<td>performance feedback stage, 139</td>
</tr>
<tr>
<td>preparatory guidance stage, 139</td>
</tr>
<tr>
<td>purposes of, 123–125</td>
</tr>
<tr>
<td>recommended practices of, 134–141</td>
</tr>
<tr>
<td>clarity of standards, 134–136</td>
</tr>
<tr>
<td>feedback as dialogue, 138–139</td>
</tr>
<tr>
<td>for feedback information, 134–136</td>
</tr>
<tr>
<td>in feedback loop design, 137–138</td>
</tr>
<tr>
<td>gauging feedback amounts, 136–137</td>
</tr>
<tr>
<td>for program design, 134–136</td>
</tr>
<tr>
<td>reflective, 138</td>
</tr>
<tr>
<td>scaffolding and, 123</td>
</tr>
<tr>
<td>student involvement in, 130–134</td>
</tr>
<tr>
<td>as self-regulated beneficiaries, 139–141</td>
</tr>
<tr>
<td>task guidance stage, 139</td>
</tr>
<tr>
<td>teachers’ involvement in deficit thinking, 133–134</td>
</tr>
<tr>
<td>Holistic Assessment discourse, 127–130</td>
</tr>
<tr>
<td>assessment for learning</td>
</tr>
<tr>
<td>defined, 22, 58</td>
</tr>
<tr>
<td>formative assessment approach and, 59–60</td>
</tr>
<tr>
<td>comparisons between, 22–23</td>
</tr>
<tr>
<td>assessment mechanics, 365–367</td>
</tr>
<tr>
<td>associationism, in formative assessment approach, 59–60</td>
</tr>
<tr>
<td>attention-directing feedback, 224</td>
</tr>
<tr>
<td>attribution theory, 57</td>
</tr>
<tr>
<td>audio-visual feedback in music instruction, 233</td>
</tr>
<tr>
<td>TEF and, 343</td>
</tr>
<tr>
<td>for students, 345–346</td>
</tr>
<tr>
<td>Australia, classroom feedback in, 264–265</td>
</tr>
<tr>
<td>Automated Marking Systems, 345</td>
</tr>
<tr>
<td>for students, 347–348</td>
</tr>
<tr>
<td>autonomous action, in TEF, 344</td>
</tr>
<tr>
<td>back-translation procedures, 110</td>
</tr>
<tr>
<td>Bandura, Albert, 480–481</td>
</tr>
<tr>
<td>behavioral pre-assessments, 443</td>
</tr>
<tr>
<td>beliefs, personal, in peer feedback, 418–420, 425</td>
</tr>
<tr>
<td>Big Five personality model agreeableness, 241</td>
</tr>
<tr>
<td>conscientiousness, 241</td>
</tr>
<tr>
<td>extroversion, 241</td>
</tr>
<tr>
<td>neuroticism, 241</td>
</tr>
<tr>
<td>noncognitive skills and, 241</td>
</tr>
<tr>
<td>openness to experience, 241</td>
</tr>
<tr>
<td>Black, Harry, 21–22</td>
</tr>
<tr>
<td>Black, Paul, 20, 22</td>
</tr>
<tr>
<td>Blodgett, Hugh Carlton, 17</td>
</tr>
<tr>
<td>Bloom, Benjamin, 432</td>
</tr>
<tr>
<td>on classroom learning, 433–434</td>
</tr>
<tr>
<td>Leyton and, 445</td>
</tr>
<tr>
<td>mastery learning, 432–440</td>
</tr>
<tr>
<td>corrective activity in, 435–436, 438–439</td>
</tr>
<tr>
<td>enrichment activities in, 439</td>
</tr>
<tr>
<td>essential elements of, 437–440</td>
</tr>
<tr>
<td>establishment of, 434</td>
</tr>
<tr>
<td>instructional process in, 436</td>
</tr>
<tr>
<td>“in-the-moment” checks in, 435</td>
</tr>
<tr>
<td>specific feedback in, 437–438</td>
</tr>
<tr>
<td>on pre-assessments, 440</td>
</tr>
<tr>
<td>on teaching strategies, 433–434</td>
</tr>
<tr>
<td>Brahma Viharas, 484–485</td>
</tr>
<tr>
<td>Braun, Karl Ferdinand, 4</td>
</tr>
<tr>
<td>the bridge, in operant conditioning, 508–509</td>
</tr>
<tr>
<td>Brown, Gavin, 376, 378</td>
</tr>
<tr>
<td>Buddhism</td>
</tr>
<tr>
<td>Brahma Viharas and, 484–485</td>
</tr>
<tr>
<td>in Japanese learning environments, 482–486</td>
</tr>
<tr>
<td>karuna and, 485</td>
</tr>
<tr>
<td>mindfulness in, 486</td>
</tr>
<tr>
<td>Pali language and, 483</td>
</tr>
<tr>
<td>Cambridge Handbook of Expertise and Expert Performance, 30</td>
</tr>
<tr>
<td>carrying capacity, 5</td>
</tr>
<tr>
<td>CASEL. See Collaborative for Social and Emotional Learning</td>
</tr>
<tr>
<td>CBM approach. See curriculum-based measurement approach</td>
</tr>
<tr>
<td>CBME. See competency-based medical education</td>
</tr>
<tr>
<td>CCSS. See Common Core State Standards</td>
</tr>
<tr>
<td>CCSSI. See Common Core State Standards for Mathematics</td>
</tr>
<tr>
<td>chain of feedback, 4</td>
</tr>
<tr>
<td>Chappuis, Jan, 525–526</td>
</tr>
<tr>
<td>Character Growth Cards, 251–252, 256–257</td>
</tr>
<tr>
<td>chunking, 43</td>
</tr>
<tr>
<td>clarity, 84–85</td>
</tr>
<tr>
<td>class size, tertiary education feedback and, 268</td>
</tr>
<tr>
<td>classroom feedback, 38–46. See also artifacts; Developing and Evaluating Measures of Formative Assessment Practices; mathematics; music; students; specific countries</td>
</tr>
<tr>
<td>for advanced beginners, 39–40</td>
</tr>
<tr>
<td>through mixed-level models, 39</td>
</tr>
<tr>
<td>in Australia, 264–265</td>
</tr>
<tr>
<td>for cognitive skills, 247–248</td>
</tr>
<tr>
<td>for competent learners, 40–42</td>
</tr>
<tr>
<td>emotional elements for, 41–42</td>
</tr>
<tr>
<td>journeyman stage, 40</td>
</tr>
<tr>
<td>through normative feedback, 41–42</td>
</tr>
<tr>
<td>self-control issues for, 41</td>
</tr>
<tr>
<td>Core Knowledge curriculum, 38</td>
</tr>
<tr>
<td>Education Endowment Foundation and, 451</td>
</tr>
<tr>
<td>for expert learners, 43–44</td>
</tr>
<tr>
<td>intuition for, 43–44</td>
</tr>
<tr>
<td>knowing-in-action for, 44</td>
</tr>
<tr>
<td>reflection-in-action for, 44</td>
</tr>
</tbody>
</table>
classroom feedback (cont.)
expert teachers in, 44
feedback for, 45–46
for improved learning, 453
management strategies for, 197–213
during class, 214
implementation of, 214–215
outside class, 197–214
on noncognitive skills, 243
for novice learners, 38–39
Critical Thinking for, 39
for proficient learners, 42–43
self-feedback for, 43
teacher communications in, for student products, 206–211
through comments, 207–211
types of, 206–207
in UK, 264–265
classroom formative assessments. See also
mastery learning; pre-assessments
identification of, 432
clerkship, in medical education feedback, 294
clicker training, 511
coaching
in CBME environment, 306
explicit, in peer feedback, 416–417
phases of, 305–306
R2C2 model, 306
cognitive appraisals, 564–565
cognitive approach, to creativity, 579–580
for aesthetic creativity, 580
convergent thinking in, 579, 583
divergent thinking in, 579, 583
for functional creativity, 580
cognitive development theory, assessment feedback and, 123
cognitive evaluation theory, 57
cognitive learning theory
in formative assessment approach, 60–61
in summative assessment approach, 57
cognitive mechanisms, of self-assessment, 400–401
cognitive pre-assessments, 442
cognitive skills, 240–241. See also thinking
CASEL and, 249
feedback in, 246–248
in classrooms, 247–248
descriptive, 248
evaluative, 248
FIT, 248
person-centered, disadvantages of, 247
jungle fallacies and, 240–241
jingle fallacies and, 240–241
metacognition, 280
peer feedback and, 412
self-assessment and, 381
noncognitive skills compared to, 242–244
outcome predictions influenced by, 240
in peer feedback, 412
cognitivist perspectives, in medical education feedback, 297–298
feedback intervention theory and, 297–298
in practice, 298
regulatory focus theory and, 298
Cohen’s Kappa criteria, in feedback-coding systems, 87–88
Collaborative for Social and Emotional Learning (CASEL), 242–243, 249
collaborative learning
CASEL, 242–243, 249
peer feedback as, 411
in CSCL, 417–418
collective provision of training, 536–537
colleges. See tertiary education
Common Core State Standards (CCSS), 149
Common Core State Standards for Mathematics (CCSS), 172
communicative learning domain, 326
competence
creativity and, 582–583
self-assessment of, 379–380
self-regulation stage of, 36
competency-based medical education (CBME) coaching in, 306
EPAs and, 289–290
competent learners, classroom feedback for, 40–42
emotional elements for, 41–42
journeyman stage, 40
through normative feedback, 41–42
self-control issues for, 41
complex feedback, 86
Computer Supported Collaborative Learning (CSCL), 417–418
computer-generated feedback, 338
concurrent self-assessment, 377
certainty of, in students, 526–527
peer feedback and, 420
Confidence: How Winning Streaks and Losing Begin and End (Kanter), 524
connective feedback, 86
consistency
in self-assessment, 378, 395–397
in tertiary education feedback definitions, 264–265
in written feedback, 87–94
of markers, 92–93
through variability of messages, 93–94
constructivism, in Japanese classrooms, 486–490
LPP, 488–489
New Education Movement and, 488
radical, 487–488
social norms and, 487
whole-group feedback strategies, 487
ZPD, 487
content analysis, 108
in medical education feedback, 292–293
of peer feedback, 418–420
<table>
<thead>
<tr>
<th>Index</th>
<th>607</th>
</tr>
</thead>
<tbody>
<tr>
<td>content feedback, 83–84, 99</td>
<td>cybernetic thinking, 30</td>
</tr>
<tr>
<td>contingent feedback interactions, 476–477</td>
<td>Cybernetics, or Control and Communication in the Animal and the Machine (Wiener), 3</td>
</tr>
<tr>
<td>continuity principle, 441</td>
<td>daily learning targets, in formative learning cycles, 65</td>
</tr>
<tr>
<td>convergent thinking, 579, 583</td>
<td>Dark Triad. See Machiavellianism; narcissism; psychopathy</td>
</tr>
<tr>
<td>Core Knowledge curriculum, 38</td>
<td>data analysis, 106–109</td>
</tr>
<tr>
<td>corporate culture, 320</td>
<td>through content classification methods, 107–108</td>
</tr>
<tr>
<td>corrective activities, in mastery learning, 435–436, 438–439</td>
<td>deductive, 107</td>
</tr>
<tr>
<td>corrective feedback, 5–6, 84, 86, 107</td>
<td>inductive, 107–108</td>
</tr>
<tr>
<td>negative feedback and, 6</td>
<td>statistical methods, 108–109</td>
</tr>
<tr>
<td>reinforcement feedback and, 6</td>
<td>data collection, 98–106. See also non-experimental research methods for DEMFAP, 194–195</td>
</tr>
<tr>
<td>in tertiary education, 278–279</td>
<td>through experiments, 98–100</td>
</tr>
<tr>
<td>creative mollification, 582</td>
<td>free response mechanisms, 98</td>
</tr>
<tr>
<td>creative mortification, 582</td>
<td>mixed methods for, 106</td>
</tr>
<tr>
<td>creativity, feedback and</td>
<td>through quasi-experiments, 100–101</td>
</tr>
<tr>
<td>cognitive approach to, 579–580</td>
<td>in TEF, 350–351</td>
</tr>
<tr>
<td>for aesthetic creativity, 580</td>
<td>De Nisi, Angelo, 3</td>
</tr>
<tr>
<td>convergent thinking in, 579, 583</td>
<td>De Wever, Bram, 417</td>
</tr>
<tr>
<td>divergent thinking in, 579, 583</td>
<td>declarative knowledge, 246</td>
</tr>
<tr>
<td>for functional creativity, 580</td>
<td>deductive data analysis, 107</td>
</tr>
<tr>
<td>competence and, 582–583</td>
<td>delayed feedback, 7</td>
</tr>
<tr>
<td>expectation of evaluation in, 583</td>
<td>delay-retention effect, 7</td>
</tr>
<tr>
<td>feedback-seeking behaviors, 582–583</td>
<td>deliberate practice</td>
</tr>
<tr>
<td>Fls and, 575</td>
<td>expertise research and, 33–34, 47</td>
</tr>
<tr>
<td>Goldilocks Principle for, 582</td>
<td>OK Plateau, 33</td>
</tr>
<tr>
<td>individual differences approach to, 580–581</td>
<td>proficiency and, 29</td>
</tr>
<tr>
<td>motivational approach to, 576–579</td>
<td>DEMFAP. See Developing and Evaluating Measures of Formative Assessment Practices</td>
</tr>
<tr>
<td>evaluation as part of, 578</td>
<td>descriptive feedback, 248, 453, 466–467. See also non-descript feedback</td>
</tr>
<tr>
<td>extrinsic, 577</td>
<td>Developing and Evaluating Measures of Formative Assessment Practices</td>
</tr>
<tr>
<td>gender factors in, 578</td>
<td>for functional creativity, 580</td>
</tr>
<tr>
<td>intrinsic, 576–578</td>
<td>individual differences approach to, 580</td>
</tr>
<tr>
<td>regulatory focus theory, 577–578</td>
<td>personality approach to, 580–581</td>
</tr>
<tr>
<td>personality approach to, 580–581</td>
<td>relationship between, 575–576</td>
</tr>
<tr>
<td>credibility, of medical education feedback, 292–293</td>
<td>credibility, of medical education feedback, 292–293</td>
</tr>
<tr>
<td>Critical Thinking, for novice learners, 39</td>
<td>culture in Japan, interactive assessment in classrooms influenced by, 494–498</td>
</tr>
<tr>
<td>Crooks, Terry, 20</td>
<td>cultural identity and, 482–483</td>
</tr>
<tr>
<td>CSCL. See Computer Supported Collaborative Learning culture in</td>
<td>in medical education feedback, 299–300</td>
</tr>
<tr>
<td>context, in, 193–194</td>
<td>learning as socio-cultural process, 299</td>
</tr>
<tr>
<td>for teacher training, 299–300</td>
<td>in practice, 300</td>
</tr>
<tr>
<td>socio-cultural theory, 57</td>
<td>for teacher training, 299–300</td>
</tr>
<tr>
<td>360-degree feedback influenced by, 318–322</td>
<td>contextualization of, 320–321</td>
</tr>
<tr>
<td>contextualization of, 320–321</td>
<td>in corporate culture, 320</td>
</tr>
<tr>
<td>in corporate culture, 320</td>
<td>curriculum features in, 320</td>
</tr>
<tr>
<td>curriculum-based measurement (CBM) approach, 147–148, 156</td>
<td>feedback, 281</td>
</tr>
<tr>
<td>coaching and, 306</td>
<td>customization, in game-based assessment, 358</td>
</tr>
</tbody>
</table>
developmental approaches, to medical education feedback, 304–307
deliberate practice, 304–305
deliberate practice, in practice, 306–307
deliberative feedback, 83
Dewey, John, 440–441, 478
didactic feedback, 107
digital games. See game-based assessment
direct observation, in medical education feedback, 295–296
discourse feedback, 84–85, 87
discrete emotions, 558–559
discursive feedback, 138
divergent thinking, 579, 583
domain knowledge, in peer feedback, 418–420, 424–425
dysfunctional managers, 323
ECD. See Evidence-Centred Design
ECgD. See Evidence-Centred Game Design
evaluation of, 526
Educational Endowment Foundation, 451
Education for Sustainable Development (ESD), 476
education systems. See also classroom feedback; mathematics; medical education; schools; students; teachers; tertiary education feedback in, 5–10
games-based assessment in, 359, 369–370
peer feedback in, 420–422
in Singapore, 125–126
PERI Committee, 125–126
Winnetka Plan in, 433
Educational Endowment Foundation, 23–24
Educational Testing Service (ETS), 337
e-Learning applications, 344
for students, 347
emancipatory learning domain, 326
embedded assessment. See game-based assessment
emotional dynamics, of feedback
environmental assessment, 519–521
for evaluation, 523–527
of confidence, 526–527
of hopelessness, 523–524
of self-efficacy, 523–524
of success, 524–525
feedback success, foundations of, 527–528
learning to read, 521–522
success and evaluation of, 524–525
as motivator for students, 528–530
emotions
achievement, 556
in competent learners, 41–42
discrete, 558–559
feedback and, 31–32, 46–47
modulation of, in medical education feedback, 293
negative, reduction of, 243
outcome, 556–557
peer feedback influenced by, 425
epistemic emotions, 418–420
employability skills, 266. See also 360-degree feedback
employment. See also 360-degree feedback
noncognitive skills and, 241–242
enrichment activities, in mastery learning, 439
teaching for professional activities (EPAs), 289–290
epistemic emotions, 418–420
ESD. See Education for Sustainable Development
ETS. See Educational Testing Service
evaluative feedback, 248, 453, 466
emotional dynamics of, 523–527
of confidence, 526–527
of hopelessness, 523–524
of self-efficacy, 523–524
of success, 524–525
Evidence-Centred Design (ECD), 345
in game-base assessment, 363–364
Evidence-Centred Game Design (ECgD), 363–364
Exemplars, in tertiary education feedback, 275–276
expectancy value theory, 57
Experience and Education (Dewey), 440–441
expert learners, classroom feedback for, 43–44
intuition for, 43–44
knowing-in-action for, 44
reflection-in-action for, 44
expert teachers, 44
feedback for, 45–46
expertise, progression to, 36–38
expertise research, on feedback, 31–34
deliberate practice, 33–34, 47
OK Plateau, 33
emotional components in, 31–32, 46–47
experts, medical education feedback and, 291–292
explicit coaching, in peer feedback, 416–417
explicit knowledge, 274–275
explicitness, 84–85
extraneous cognitive load creation, in game-based assessment, 360–361
extrinsic motivation, 577
extraversion-type students, 228
<table>
<thead>
<tr>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAPDP. See Formative Assessment</td>
</tr>
</tbody>
</table>
formative assessment approach, to feedback (cont.)
definition of, 22, 58
feedback episodes in, 66–72
negative, 70
positive, 70
students’ perception of, 67–72
teachers’ perceptions of, 67–68
in feedback literature, 61–62
FIs, 60
FIT, 60–61
in formative learning cycles, 64–66
daily learning targets in, 65
medium-cycle goals, 65
outcome feedback in, 65
short-cycle goals, 65
through game-based assessment, 359
instructional feedback and, 147–149,
154–157, 593–594
CBM approach, 147–148, 156
future research on, 158–162
through peers, 155
6+1 trait writing program, 147, 155–156
sources of, 154
in Japanese classrooms, 475
key strategies of, 23–24
Learning and Teaching Toolkit in, 23–24
in medical education, 296
for music instruction, 228–229
in peer feedback, 410–411
qualitative tasks in, 63
quantitative tasks in, 63
scope of arguments for, 53
in self-assessment research, 383–395
specifying attainment in, 64
Formative Assessment Professional
Development Programme (FAPDP),
formative evaluation, 59
formative learning cycles, 64–66
daily learning targets in, 65
medium-cycle goals, 65
outcome feedback in, 65
short-cycle goals, 65
Formative Use of Summative Tests (FUST), 73
free response mechanisms, 98
functional creativity, 580
functional managers, 323
FUST. See Formative Use of Summative Tests
Gagné, Robert, 5
game mechanics, 365–367
game-based assessment
agency in, 358
assessment mechanics, 365–367
challenges for, 360–361
extraneous cognitive load creation,
360–361
lack of general acceptance, 360
test theory limitations, 360
customization in, 358
educational applications of, 359, 369–370
effectiveness of, 358–360
evaluative features of, 358–359
evidence for, sources of, 365–368
Bayesian Network analysis of, 367
game mechanics, 365–367
through positive reinforcement,
367
formative assessment through, 359
foundations of, 361–369
ACT-R theory, 362–363
ECD, 363–364
generations in, 361–362
intelligent tutoring systems, 362–363
with affective computing, 371
ideal student model of knowledge, 363
learning mechanics, 365–367
limitations of, 370
in NETP, 357–358
personalization of, 358–359
positive affect as result of, 371
validation of, 368–369
well-ordered problems in, 358
game-based learning, 345
Gan, Mark, 416–417
gender, creativity and, 578
generic feedback, 84, 86
g-factor, 240. See also cognitive skills
Gielen, Mario, 417
Gielen, Sarah, 414–416
goal theory, 57
goal-setting, in proactive recipience, 535
Goldilocks Principle, 582
grades
as enhanced feedback, 170
primary grade measurement issues, 187
graduate attributes, 266
graduate outcomes, 266–267
guided self-assessment, 300
Harris, Lois, 376
Hattie, John A. C., 66, 416, 418
higher education. See tertiary education
Hill, Mary, 416
Hirsch, E. D., 38
Holistic Assessment discourse, 126–130
PERI Committee, 126–127
reporting systems, 127
teachers’ use of, 127–130
home environments, operand conditioning in,
510–513
clicker training, 511
for pets, 510–512
through positive punishment, 511–512
through positive reinforcement, 511
hopelessness, 523–524
HRM management. See human resource management
human relations movement, 324
human relations skills, 326
human resource management (HRM), 314–316
humanism, 302–304
in practice, 303–304
ideal student model of knowledge, 363
in-depth dialogic interaction. See neriage
inductive data analysis, 107–108
informal reasoning, 180
informed self-assessment, 300
informing skills, 326
Inoue, Noriyuki, 490
instruction. See also classroom feedback;
learning feedback compared to, 6–7
by peers, 412, 423–424
types of, 8
instructional feedback. See also music; writing
age as factor in, 594–596
for animals. See also operant conditioning
scope of, 505
challenges with, 600–601
definition of, 592–593
formative assessment and, 593–594
future applications of, 601–602
messaging as factor in, 596–598
overview of, 591–592
research on, 598–600
for students, 600
subject matter as factor in, 594–596
instructional tasks, in DEMFAP, 194
intelligent tutoring systems, 362–363
interaction principle, 441
interactive assessment. See Japan interactive feedback, 138
inter-personal skills, 326
intervention studies, 568–569
interviews, as non-experimental research
method, 102–104
“in-the-moment” checks, in mastery learning, 435
intra-personal skills, 326
intrinsic motivation, 576–578
music instruction as influence on, 220
introversion-type students, 228
intuition, 37
for expert learners, 43–44
JA/LN. See Japanese Assessment for Learning Network
James, William, 242
jangle fallacies, 240–241
Japan, interactive assessment in classrooms
adaptive experts, 490
Buddhist influences on, 482–486
constructivism in, 486–490
LPP, 488–490
New Education Movement and, 488
radical, 487–488
social norms and, 487
whole-group feedback strategies, 487
ZPD, 487
contingent feedback interactions and,
476–477
cultural values as influence on, 494–498
ESD, 476
formative assessment, 475
in mathematics lessons, 487, 490–494
deconstruction of, 491–494
signature pedagogy, 490–491
synchronous feedback in, 492–493
during Meiji Restoration, 478
MEXT, 474–475
national cultural identity in, 482–483
neriage in, 487, 489–494
neural rewards for, 494–495
New Education Movement and, 477–482
constructivist practices and, 488
Kyoto School, 480
origins of, 478–479
personal agency in, 480–481
OECD scores for, 475–477
positive interactions, 494–495
defined, 495–496
purpose and function in, 474
routine experts, 490
scaffolding in, 484–485
social negotiation of meaning in, 489
zenjin-education, 474, 479, 481–482
assessment practices, 484
Japanese Assessment for Learning Network
(JA/LN), 478
intuition, 37
Kanter, Rosabeth Moss, 524
KCR. See knowledge of correct response
kinaesthetic feedback, 231
Kluger, Avraham, 3
knowing-in-action, 44
knowledge of correct response (KCR), 6
knowledge of results (KR), 6, 20–21
Kyoto School, 480
law of effect, 53
leadership development skills, 326
learner-centeredness, 302–304
in practice, 303–304
learners
competent, classroom feedback for, 40–42
emotional elements for, 41–42
journeyman stage, 40

© in this web service Cambridge University Press

www.cambridge.org
learners (cont.)
through normative feedback, 41–42
expert, classroom feedback for, 43–44
intuition for, 43–44
knowing-in-action for, 44
reflection-in-action for, 44
novice
classroom feedback for, 38–39
progression from, 36–38
proficient, classroom feedback for, 42–43
self-feedback for, 43
teacher expectations of, in South Africa,
463–468
learning, 16–17. See also classroom feedback;
mastery learning
adult learning theory, 325–326
assessment for, 22–23
defined, 22
collaborative, peer feedback as, 411
CSCL environments, 417–418
communicative domain, 326
desirable difficulties in, 19
emancipatory domain, 326
function and practice of, 52
instrumental domain, 326
LMSs, 337–338, 346–347
long-term, reduction in, 17
medical education feedback and, 301–302
peer feedback for, 410–411
dissertations on, 414–416
as socio-cultural process, 299
SRL, 24, 379
in proficiency models, 36
Learning and Teaching Toolkit, 23–24
learning cues, 291
learning cycles. See formative learning cycles
Learning for Mastery (Bloom), 432
Learning Management Systems (LMSs),
337–338, 346–347
learning mechanics, 365–367
learning to read, 521–522
legitimate peripheral participation (LPP), 488–489
Lewis, Catherine, 497–498
Leyton, F. S., 445–446
Leyton study, on pre-assessments, 445–446
mastery level performance scores in, 446
listening skills, 326
LMSs. See Learning Management Systems
long-term learning, reduction in, 17
long-term memory, changes in, 19–20
LPP. See legitimate peripheral participation
Lui, Angela, 401
Machiavellianism, 319
managers
dysfunctional, 323
functional, 323
Marconi, Guglielmo, 4
marking schedules, in tertiary education
feedback, 276
Marzano, Robert, 249
Massive Open Online Courses (MOOCs),
270–271
master-apprentice model, 226
mastery learning, 432–440
corrective activity in, 435–436, 438–439
enrichment activities in, 439
esential elements of, 437–440
establishment of, 434
instructional process in, 436
“in-the-moment” checks in, 435
specific feedback in, 437–438
mathematics, feedback in
enhanced feedback, grades as, 170
extended, 176–177
immediacy of, 183–185
in Japanese classrooms, 487, 490–494
deconstruction of, 491–494
signature pedagogy, 490–491
synchronous feedback in, 492–493
learning-goals and, 172–174
CCSSI, 172
at primary level, 172–174
misconceptions about, 177–187
by peers, 418–420
primary grade measurement issues, 187
process-oriented feedback in, 169–170
Pythagorean theorem, 180
research, 205–206
social-comparative feedback in, 169–170
student work and, different responses to,
177–183
generalizations about, 186
inappropriate assumptions in, 177–185
for informal reasoning, 180
for non-proportional reasoning, 179
teachers’ assumptions in, 171
thinking and, promotion of, 170–171
trigonometric ratios, 180–183
types of, 174–177
for creativity, 176
for perspective-taking, 175–176
for self-correction, 174
strategic choices in, 175
medical education, feedback in
CBME models
coaching in, 306
EPAs and, 289–290
challenges in, 291–292
cultural, 294–296
in student/teacher relationships, 294
system, 294–296
during clerkship, 294
cognitivist perspectives in, 297–298
feedback intervention theory and, 297–298
in practice, 298
regulatory focus theory and, 298

© in this web service Cambridge University Press www.cambridge.org
clicker training, 511
for pets, 510–512
through positive punishment, 511–512
through positive reinforcement, 511
negative outcomes, 505–506
positive outcomes, 505–506
primary reinforcement, 506–507
the bridge as, 508
secondary reinforcement paired with, 507
in school environments, 510–513
conditioning of people in, 512–513
with TAGteach, 513
secondary reinforcement, 507–510
the bridge in, 508–509
conditioning of, 507–508
primary reinforcement paired with, 507
 tactile reinforcement as, 509
toys in, 509–510
verbal reinforcement as, 510
oral communication skills, 326
oral feedback, 152
Organisation for Economic Cooperation and Development (OECD), 242, 475–477
The Other Side of the Report Card: Assessing Student’s Social, Emotional, and Character Development, 249–250
outcome emotions, 556–557
Pali language, 483
Panadero, Ernesto, 376
parallel forms approach, to pre-assessment, 442
Peer Assisted Sessions (PASS) programme, 280–281
peer feedback
accuracy in, 419
achievement influenced by, 426
anonymity in, 421, 423
as assessment tool, 410–411
as collaborative learning, 411
conceptualization of, 409–410
confidence of participant as factor in, 420
content of, 418–420
in CSCL environments, 417–418
defined, 409
development of, 409
domain knowledge in, 418–420, 424–425
effective characteristics in, 412–413, 422–426
cognitive functions, 412
of individuals, 413, 424–426
of instruction, 412, 423–424
interpersonal variables, 413, 425–426
metacognitive functions, 412
motivation, 412
social variables, 413
emotional influences on, 425
epistemic, 418–420
empirical evidence on, 413–414
explicit coaching in, 416–417
formative approach to, 410–411
in instructional feedback, 155
for learning, 410–411
dissertations on, 414–416
in mathematical education, 418–420
in music instruction, 229–231
in group settings, 230
novice teachers and, 230–231
perceptions as factor in, 418–420, 425
personal beliefs in, 418–420, 425
prompts in, 416–417
proof comprehension in, 419
PTDT in, 419–420
purposes of, 410–411
scaffolding in, 416–417, 421, 423–424
scope of, 409–410
through scoring, 411
in secondary education, 420–422
structuring of, 417–418
teacher feedback as distinct from, 422
in tertiary education, 277–278, 420–422
through models, 265
PASS programme, 280–281
SI, 280–281
in 360-degree feedback, 317, 319–320
utilization of, precautions in, 318
perceptions, personal
in formative assessment approach of students, 67–72
by teachers, 67–68
of music instructional feedback, 225–226
peer feedback influenced by, 418–420, 425
performance appraisal system, 313–314
HRM in, 314–316
job satisfaction scores, 318
performance management in, 314
performance feedback, emotions and achievement emotions, 556
definition of, 555–557
direct relationship between, 557–561
causality in, 559–560
across domains, 560–561
emotional valence, 557–559
with negative feedback, 557–559
with positive feedback, 557–559
reference group achievement levels, 560
discrete emotions, 558–559
future research on, 567–569
through intervention studies, 568–569
for intra-individual relations, 568
in theory development, 568
mediators of, 561–567
achievement goals, 565–566
action tendencies, 566
attitudinal reactions as, 566
behavior as, 566–567
cognitive appraisals, 564–565
performance feedback, emotions and (cont.)
moderators of, 561–567
academic domain, 562
emotion regulation, 563
level of generalization, 561–562
personality variables, 563
purpose of feedback, 564
outcome emotions, 556–557
overview of, 554–555
self-referential feedback, 565
performance feedback stage, in assessment feedback, 139
performance management, 314
PERI Committee. See Primary Education Review and Implementation Committee
person praise, as feedback, 227–228
personal agency, 480–481
personal beliefs. See beliefs
personal feedback, 86
personal perceptions. See perceptions
personality traits
for creativity, 580–581
360-degree feedback influenced by, 318–322
contextualization of, 320–321
Machiavellianism, 319
narcissism, 319
psychopathy, 319
person-centered feedback, 247
person-centeredness, 302–304
in practice, 303–304
pets, operant conditioning for, 510–512
phatic feedback, 132
phenomenography, 108
phenomenology, 108
Physicians Universal Leadership-Teamwork Skills Education (PULSE) 360, 315
plagiarism, 84–85
Popper, Karl, 555
positive affect, 371
positive feedback, 4–5
corrective feedback and, 6
emotions and performance feedback influenced by, 557–559
in feedback messaging, 86–87
in feedback-coding systems, 81
in music instruction, 222
reinforcement feedback and, 6
in 360-degree feedback, 324–325
positive outcomes, from operant conditioning, 505–506
positive punishment, 511–512
positive reinforcement, 511
pre-assessments, 440–446
affective, 443
behavioral, 443
benefits of, 440
Bloom on, 440
cognitive, 442
continuity principle in, 441
definition of, 441–442
design of, 442
forms of, 443–444
prerequisite, 443
present, 443–444
preview, 444
interaction principle in, 441
in Leyton study, 445–446
mastery level performance scores in, 446
long-term implications of, 446–448
parallel forms approach to, 442
purposes of, 442
research on, 442–443
theoretical foundations for, 440–441
preliminary feedback intervention theory, 14
preparatory guidance stage, of assessment feedback, 139
prerequisite pre-assessments, 443
presearch availability, 56
present pre-assessments, 443–444
preview pre-assessments, 444
Primary Education Review and Implementation (PERI) Committee, 125–126
Holistic Assessment discourse and, 126–127
primary reinforcement, in operant conditioning, 506–507
the bridge as, 508
secondary reinforcement paired with, 507
primary schools. See assessment feedback
proactive reciprocal, 531
assessment literacy in, 534–535
engagement in, 535
future research on, 537–538
goal-setting in, 535
motivation in, 535
practice recommendations, 544–545
self-appraisal in, 534
self-regulation in, 535
taxonomy of, 534–538
procedural knowledge, 246
process-oriented feedback, 169–170
proficiency, 47–48. See also classroom feedback; expertise research
arrested development and, 29, 46
deliberate practice and, 29
models of, 29–30, 34–38
external support in, 36
progression, 35
self-regulation in, 36
skills progression in, 35–38
transitions in, 36
scaffolding and, 47
proficient learners, classroom feedback for, 42–43
self-feedback for, 43
prompts, 416–417
proof comprehension, 419
proportional total dwell time (PTDT), 419–420
proprioceptive feedback, 232
Pryor, Karen, 511
psychology, feedback in, 5–10
psychopathy, 319
psychosocial skills, 241. See also noncognitive skills
PTDT. See proportional total dwell time
PULSE 360. See Physicians Universal Leadership-Teamwork Skills Education 360
punishment. See positive punishment
Pythagorean theorem, 180–183
R2C2 model, 306
radical constructivism, 487–488
Ramaprasad, Arkalgud, 22–23
reading comprehension, 381
real-time visual systems, in music instruction, 232
referencing, in feed-back coding systems, 80–81
reflection-in-action, 44
reflective feedback, 138
reflective perspectives, in medical education feedback, 300–302
in learning strategies, 301–302
in practice, 301–302
regulatory focus theory, 298, 577–578
reinforcement feedback, 5–6, 107
delay-retention effect and, 7
negative feedback and, 6
positive, 511
positive feedback and, 6
superiority of, 7
verbal, 510
research methods, 109–111
data analysis, 106–109
through content classification methods, 107–108
deductive, 107
inductive, 107–108
statistical methods, 108–109
data collection in, 98–106
through experiments, 98–100
free response mechanisms, 98
mixed methods for, 106
through quasi-experiments, 100–101
investigative approach to, 97–98
multiple, 97
non-experimental, 101–106
- case studies as, 105–106
focus groups, 104
interviews, 102–104
observation as, 104–105
survey studies, 101–102
through traces, study of, 105
retrieval strength, 18–19
Rotsaert, Tijs, 420–422
routine experts, 490
rubrics
of artifacts, 199, 202–203
as marking schedule, 276
for SEL programs, 251–257
for self-assessment, 382
Sadler, Royce, 525
Sakata, Michita, 479
Sawayanagi, Masataro, 477–482
scaffolding feedback, 30
in assessment feedback, 123
in Japanese classrooms, 484–485
peer feedback and, 416–417, 421, 423–424
proficiency and, 47
self-assessment and, 382
transition in, 36
Schellens, Tammy, 420
schools, operant conditioning in, 510–513. See also classroom feedback; students
conditioning of people in, 512–513
with TAgTeach, 513
scripts, for self-assessment, 382
secondary reinforcement, in operant conditioning, 507–510
the bridge in, 508–509
conditioning of, 507–508
primary reinforcement paired with, 507
tactile reinforcement as, 509
verbal reinforcement as, 510
SEL programs. See Social and Emotional Learning programs
self-appraisal, in proactive recipience, 534
self-assessment
- affective mechanisms of, 400–401
cognitive mechanisms of, 400–401
of competence, 379–380
conceptualization of, 379–380
concurrent, 377
consistency in, 378, 395–397
criteria for, 400
definition of, 376–377
evaluative criteria for, 378–379
honesty in, 378
internal mechanisms in, 401
in medical education feedback, 293, 300–302
guided, 300
informed, 300
in practice, 302
metacognition and, 381
music instruction and, 229–231
with video analysis, 229–230
next black box in, 401
operationization of, 376–377
purpose of, 377–379
self-assessment (cont.)
or reading comprehension, 381
research on, 383–400
on achievement, 398
formative assessment in, 383–395
future directions for, 399–400
review studies in, 384–394
for SRL, 398–399
through student perceptions, 397–398
summative assessment in, 383–395
rubrics for, 382
scaffolding in, 382
scripts for, 382
self-monitoring and, 377, 381
self-testing and, 381
standard types of, 400
targets of, 379–380
taxonomy of, 380–383
self-efficacy, 380–381
in 360-degree feedback, 317, 319–320
utilization of, precautions in, 318
traffic lights approach in, 381
self-control. See also self-regulated learning
for competent learners, 41
self-correcting systems, development of, 4
self-efficacy theory, 57
evaluation of, in students, 523–524
self-assessment taxonomy and, 380–381
self-feedback, 155–156
self-monitoring, 377, 381
self-referential feedback, 565
self-regulated learning (SRL), 24, 379
in proficiency models, 36
in self-assessment research, 398–399
Self-Regulated Strategy Development model, 150
self-regulation skills
in proactive recipience, 535
in tertiary education, 280
self-regulation stage, 36
self-regulatory feedback, 150
self-testing, 381
sensory feedback, 219
in music instruction, 233–234
sequential patterns, in music instruction, 223–224
Seven Strategies of Assessment FOR Learning
(Chappuis), 525–526
short-cycle goals, in formative learning cycles, 65
SI. See Supplemental Instruction
side-shadowing feedback, 151–152
signature pedagogy, 490–491
simple feedback, 86
Singapore. See also assessment feedback
education system in, 125–126
PERI Committee, 125–126
6+1 trait writing program, 147, 155–156
skills progression, 35–38

Skinner, B. F., 6
Slavin, Robert, 7
Smarter Balanced 149
Social and Emotional Learning (SEL) programs
ACT Tessera Social and Emotional Learning Assessment System, 250–257
CASEL and, 242–243, 249
Character Growth Cards, 251–252, 256–257
OECD and, 242
recommendations for, 250–257
rubrics for, 251–257
teaching in, 242–243
social cognitive theory, 57
social negotiation of meaning, 489
social norms, in Japan, 487
social participation, in DEMFAP, 193
social practice perspective, in tertiary education feedback, 272–273
social-comparative feedback, 169–170
socio-cultural perspectives, in medical education feedback, 299–300
learning as socio-cultural process, 299
in practice, 300
for teacher training, 299–300
socio-cultural theory, 57
somatosensory feedback, 231
South Africa, teacher feedback practices in, 452, 456–468
classroom practices and, 456–457
formal assessments for, 457
policy stipulations in, 456–457
teacher expectations and, 458–461, 469
FAPDP, 459
by fee status, 465–467
on improvement strategies, 470
instruments for, 460
of learners, 463–468
methods, 459
motivational comments, 466, 469–470
teacher samples, by school category, 459–460
thematic analysis of, 460–461
written feedback practices, 461–463
frequency of, 461, 463
types of, 461, 463
specifying attainment, 64
SRL. See self-regulated learning
storage strength, 18–19
Strijbos, Jan-Willem, 418
structure, 84–85
in feedback-coding systems, 80–81
students. See also active engagement; emotional dynamics; self-assessment
ideal student model of knowledge, 363
instructional feedback by, 152
summative feedback and, 148–149
instructional feedback for, 600
mathematics feedback for, different responses to, 177–183
generalizations about, 186
inappropriate assumptions in, 177–185
informal reasoning, 180
non-proportional reasoning, 179
music instructional feedback for
for extroversion-type students, 228
improvement by, 227–228
for introversion-type students, 228
perceptions of, 225–226
teacher relationships with, medical education feedback and, 294

TEF for, 345–348
through audio-visual modalities, 345–346
through Automated Marking Systems, 347–348
with e-Learning applications, 347
through learning management systems, 346–347
through online portals, 346–347
tertiary education feedback and, 269
student engagement in, 277–278
success
evaluation of, 524–525
as motivator for students, 528–530
suggestive feedback, 107

Sugita, Hiroshi, 479

summative assessment approach, to feedback, 53–58, 72–73

attrition theory in, 57
cognitive evaluation theory in, 57
cognitive learning theory in, 57
cognitive perspectives in, 57–58
constructivist perspectives in, 57–58
expectancy value theory in, 57
FUST, 73
goal theory in, 57
historical development for, 53–54
instructional feedback and, 147–149, 157–158
accountability through, 148
CCSS and, 149
classroom changes through, 149
effectiveness of, 157–158
future research on, 162
purpose and function of, 148–149
Smarter Balance, 149
student evaluation through, 148–149
teacher evaluation through, 148
law of effect and, 53
in medical education feedback, 296
motivation theory in, 57–58
presearch availability and, 56
scope of arguments in, 53
in self-assessment research, 383–395
self-efficacy theory in, 57
social cognitive theory in, 57

social constructivism and, 57
socio-cultural theory in, 57
teaching machines and, 53–54
summative evaluation, 59
supervisor-learner relationships, 303
Supplemental Instruction (SI), 280–281
survey studies, as non-experimental research method, 101–102
sustainable monitoring, of active engagement, 535–537

Sutton, Ruth, 21

synchronous feedback, 492–493
tacit knowledge, 274–275
tactile reinforcement, 509
TAGteach, 513
task guidance stage, in assessment feedback, 139

TEA. See technology-enhanced assessment
teacher expectations, in South Africa, 458–461

FAPDP, 459
by fee status, 465–467
on improvement strategies, 470
instruments for, 460
of learners, 463–468
methods of, 459
motivational comments, 466, 469–470
teacher samples, by school category, 459–460

 thematic analysis of, 460–461
teacher training, in medical education feedback, 299–300
teacher-feedback loop, 225
teachers, feedback from. See also artifacts;
South Africa; teacher training
applied music, 227–228
in assessment feedback, in Singapore primary schools
deficit thinking, 133–134
Holistic Assessment discourse, 127–130
classroom feedback by, for student products, 206–211
types of, 206–207
expectations of, 455–456
improvement strategies for, 212–215
instructional feedback by, 152
summative feedback and, 148
mathematics feedback by, 171
music instructional feedback by, 220–225
approval of, 227–228
with negative feedback, 222
novice teachers, 226, 230–231
with positive feedback, 222
reinforcement behaviors, 221
specificity of, 224–225
through verbalization, 221, 223–224
of noncognitive skills through classroom interventions, 243
teachers, feedback from. (cont.)
cognitive skills compared to, 242–244
through reduction of negative
emotionality, 243
in SEL programs, 242–243
peer feedback as distinct from, 422
student relationships with, medical education
feedback and, 294
in tertiary education, qualifications for, 269
teaching machines, 53–54

technology-enhanced assessment (TEA)
development of, 335–336
research on, 338–339
article sources in, 340–341
computer-generated feedback in, 338
conflicts of interest with, 339
data collection procedures in, 350–351
future directions in, 352–353
innovators and, 351–352
search strings in, 340
technology-enhanced feedback (TEF)
affordances of, 349–350
with AI, 337
audio-visual technologies, 343
for students, 345–346
Automated Marking Systems, 345
for students, 347–348
benefits of, 349–350
development of, 335–338
ECD, 345
e-Learning applications, 344
for students, 347
enhancement of feedback through, 341–345
autonomous action, 344
without transformation of information,
343–344
by transforming information, 344–345
ETS, 337
evaluation of, 348–349
of feedback clarity, 348–349
of feedback quality, 348–349
game-based learning, 345
historical context of, 336–339
LMs, 337–338
methodology for, 339–341
analysis in, 341
article sources in, 340–341
meta-synthesis in, 341
scope of, 339–340
online portals, 343–344
for students, 346–347
potential problems with, 335–336
research on, 338–339
article sources in, 340–341
computer-generated feedback in, 338
conflicts of interest with, 339
data collection procedures in, 350–351
future directions in, 352–353

iinnovators and, 351–352
search strings in, 340
software for, 337
for students, 345–348
through audio-visual modalities, 345–346
through Automated Marking Systems,
347–348
with e-Learning applications, 347
through learning management systems,
346–347
through online portals, 346–347
sustained use of, 338
trends in, 341–349
TEF. See technology-enhanced feedback
tertiary education, feedback in
academic outcomes influenced by, 268
in Australia, 264–265
class size and, 268
curriculum features, 281
definitions of feedback for, 264–265
inconsistencies in, 264–265
employability skills, 266
in faculty-designed courses, 271
for first-year students, 269
future research directions for, 282
graduate attributes, 266
graduate outcomes, 266–267
at macro level, 268–269
at meso level, 269–271
metacognitive skills and, development of, 280
at micro level, 271–279
Academic Literacies perspective, 272–274,
277
Academic Socialisation Model, 273
assessment requirements, 271–272,
278–279
communication of expectations, 275–277
as corrective, 278–279
dialogical approach, 281–282
enhancement of feedback practices,
279–282
exemplars, 275–276
explicit knowledge, 274–275
feedback loops, 279
interpretation of feedback, 279
marking schedules, 276
peer assessment, 277–278
social practice perspective, 272–273
student engagement, 277–278
tacit knowledge, 274–275
outcomes of, 266
through peer feedback, 277–278, 420–422
models of, 265
PASS programme, 280–281
SI, 280–281
program studies and, 270
MOOCs, 270–271
purpose of, 266–267
self-regulation skills and, development of, 280
systems view of, 267–279
teaching qualifications, 269
in UK, 264–265
test theory, games-based assessment and, 360
thinking
convergent, 579, 583
divergent, 579, 583
promotion of, 170–171
Thorndike, Edward, 18–20
360-degree feedback
adult learning theory and, 325–326
AMO framework, 313
challenges for, 324–325
health implications, 324–325
cultural factors as influence on, 318–322
contextualization of, 320–321
in corporate culture, 320
definitions of, 316–317
from dysfunctional managers, 323
from functional managers, 323
human relations movement and, 324
implementation stage of, 322, 324, 327
longitudinal studies on, 323
measurement scales in, 317
high-quality instruments and, 325
in NBS, 320–321
negative feedback and, 319, 324–325
peer review in, 317, 319–320
utilization of, precautions in, 318
performance appraisal system, 313–314
HRM in, 314–316
job satisfaction scores, 318
performance management in, 314
personality traits as influence on, 318–322
contextualization of, 320–321
Machiavellianism, 319
narcissism, 319
psychopathy, 319
positive feedback and, 324–325
PULSE 360, 315
purpose and function of, 315, 323
scope of, 316–318
self-review in, 317, 319–320
utilization of, precautions in, 318
sources of, 321
transformational learning theory perspective, 325–327
communicative learning domain, 326
emancipatory learning domain, 326
instrumental learning domain, 326
skills deficits in, 326
upward review in, 317–318
utilization of, precautions in, 318
time management skills, 326
timing of feedback, 30
topic specific feedback, 83–84, 86
touch. See tactile reinforcement
toys, in secondary reinforcement, 509–510
trace studies, 105
traffic lights approach, in self-assessment, 381
transformational learning theory perspective, 325–327
communicative learning domain, 326
emancipatory learning domain, 326
instrumental learning domain, 326
skills deficits in, 326
translation procedures, 110
trigonometric ratios, 180–183
tutoring systems. See intelligent tutoring systems
Ufer, Stefan, 418
United Kingdom (UK), classroom feedback in, 264–265
universities. See tertiary education
upward review, 317–318
utilization of, precautions in, 318
verbal reinforcement, 510
vestibular responses, 232
visible learning, 50
Vocal Sensorimotor Loop, 232
Vogel, Ezra, 478
Watt, James, 4
Weiner, Norbert, 3
well-ordered problems, 358
whole-group feedback strategies, 487
Winnetka Plan, 433
Wooden, John, 33–34
Writers in Community Model, 159–161
writing, instructional feedback in defined, 145–146
delivery modes for, 152–154
through digital systems, 153
oral, 152
by students, 152
by teachers, 152
visual, 152–153
effectiveness of, 153–154
feed-forward, 151–152
feed-up, 151
focus of, 149–152
product as, 150
tasks as, 150
formative feedback and, 147–149, 154–157
CBM approach, 147–148, 156
future research on, 158–162
through peers, 155
6+1 trait writing program, 147, 155–156
sources of, 154

© in this web service Cambridge University Press

www.cambridge.org

© in this web service Cambridge University Press

www.cambridge.org
| writing, instructional feedback in (cont.) | taxonomy of, 150–151 |
| future research on, 158–162 | in Writers in Community Model, 159–161 |
| on formative feedback, 158–162 | written feedback. See also feedback messages; feedback-coding systems |
| on summative feedback, 162 | alternative messages to, 80 |
| limitations of, 163 | consistency in, 87–94 |
| purpose and function of, 145, 147–152 | of markers, 92–93 |
| recommendation guidelines for, 163 | through variability of messages, 93–94 |
| self-feedback and, 155–156 | in practice, 453–455 |
| Self-Regulated Strategy Development model, 150 | by South African teachers, 461–463 |
| side-shadowing, 151–152 | frequency of, 461, 463 |
| summative feedback and, 147–149, 157–158 | types of, 461, 463 |
| accountability through, 148 | taxonomy of, 85–87, 94–95 |
| CCSS and, 149 | types of, 454 |
| classroom changes through, 149 | from UK primary school teachers, 455 |
| effectiveness of, 157–158 | youth development programs, 245 |
| future research on, 162 | zenjin-education, 474, 479, 481–482 |
| purpose and function of, 148–149 | assessment practices, 484 |
| Smarter Balance, 149 | Zone of Proximal Development (ZPD), 487 |
| student evaluation through, 148–149 |  |
| teacher evaluation through, 148 |  |