SUBJECT INDEX

A Letter to Yourself, 100–101
Abilene Christian University (ACU), 53–54
Accrediting agencies, 66
Active Learning, 40, 121, 148
Adulthood, 91
Affect, 69
Affective attributes, 7
Affective domain, 66–67
  learning outcomes, 68
  taxonomy, 69
Affective learning, 7, 81
Affective learning domain, 7, 68–69
Affective learning outcomes (ALOs), 66–67, 74
  authentic formative assessment, 67–68
  data analysis, 73–77
  findings, 81–83
  framework for learning, 67
  learning outcomes, 68–71
  online learning pedagogy, 68
  procedures, 71–73
  results of data analyses, 77–81
Affective taxonomy, 68
Algebra, 45
Alike (animated short film), 121
Alone Together, 91
American Journal of Pharmaceutical Education, 55
Android, 164
Anger (AN), 74
Animated video method, 46
Animation, 46, 120, 124
Anxiety-worry (AW), 74
Apathy (AP), 74
Appropriate pedagogies, 13
Artistic ability, 120
Assessment, 66, 67–68
Assignments, student feedback on, 97
Association for Medical Education in Europe (AMEE), 15
Association for the Advancement of Sustainability in Higher Education (AASHE), 177
Asynchronous discussions, 143–144
Attitudes, 70, 74
Autobiography assignment, 99–100

Behavioral awareness, 144
Beliefs, 5
Blackboard, 164
Blackboard Collaborate Ultra, 143
Blackboard Exemplary Course, 148
Blackboard Exemplary rubric peer-review process, 147–148
Blackboard LMS, 146, 151
Blended learning approaches, 32
  quality aspects and quality criteria for, 35–37
Blended teaching, 38
Brightspace, 100
Business students, 8, 165, 169, 171, 177

Calculus, 45
Campus Local Area Network, 37
Campus-based T&L, 40
CanMEDS Framework, 13
Career networking, 8, 91

Center for Information Technology System (CITS), 32, 37
Center for Information Technology Systems (CITS)
Centre for Lifelong Learning (CILL)
Challenges, 7
  in collaborative group projects, 149–151
  institutional cultural issues, 58–61
  for medical education, 13
  due to peer review, 152
  of technology-enhanced learning, 8
"Childhood obesity", 148
CISCO WebEx, 46
Classroom activities, student feedback on, 97
Cloud-based collaborative office productivity tools
  case for using cloud-based office productivity suites, 164–165
  Google Workspace, 165–169
  group assignments with Google Workspace, 169–175
  group projects with Google Workspace, 175–178
  software, 163–164
Cloud-based office productivity, 162
  software, 163–164
Cloud-based office productivity suite(s), 8
Co-creativity, 124
Codesign, 18
Cognitive load theory, 15
Collaboration, 148
Collaborative cloud-based software, 162
Collaborative group projects
  challenges in, 149
  conceptual/designing of group projects, 150
  facilitation and sustenance of group-based collaborative projects, 150–151
  implementation of group/collaborative projects, 150
Collaborative learning, 12, 152
Collaborative problem solving (CPS), 13
  complexity of teaching through, 13–15
  CPS-first in hybrid virtual setting, 22–26
Collaborative projects, 145, 154
  facilitation and sustenance of group-based collaborative projects, 150–151
  implementation, 150
College of Education and Human Services (CEHS), 53
College Wide Curriculum, 53
Committee on Education and Labor Report, 52
Communication disorders, 53
Communications, 162
Community college system, 162
Competence satisfaction, 21
Competency, 5
Computer-supported collaborative learning (CSCL), 14
Computing, 162
Conceptualization of creativity, 122
Confidence, 35, 93, 99, 122, 126, 130, 166–167, 175
Conflict resolution guide template, 158
Confusion (CF), 74
Constructivism, 98
Contentment (CN), 74, 83
Course culture, student feedback on, 97
COVID-19, 23, 92, 104
Creative expression, 121, 123
Creative learning, 67
Creative mind, 121
Creative pedagogy, 127
Creative storyboarding approach, 124–125
Creative teaching, 122
Creativity, 120, 126
  digital storyboarding and, 123–124
  within higher education, 121–122

Critical thinking, 143
Curriculum change, 15
Curriculum development (CD), 39
Curriculum redesign, 23

De facto paradigm, 70
Delivery modes, 163
Demographic data, 93
Demographics, 109–110
Design-based research (DBR), 13, 16–17
  teacher–researcher collaboration within, 16–19
Desire2Learn's Brightspace, 164
Developmental dimensions, 8, 90–91
Digital culture, 91
Digital educational tools, 130
Digital revolution, 124
Digital storyboarding, 120–121
  benefits within higher education, 123
  case study, 125
  challenges of integrating digital tools within higher education, 129–131
  and creativity, 123–124
  creativity within higher education, 121–122
  digital technologies to foster creativity and enhance student outcomes, 122–123
  learner outcomes, 129
  and sense-making, 124–125
  student feedback, 128–129
  students, 127–128
  time for reflection, 128
  versatility of online digital storyboarding platform, 126–127
Digital technology, 120
Digital tools, 123
Digital transformation
  policy, 40
  of T&L at UoM, 47
Discussions, 142–144
Distance education, 68
Distance eLearning, 38
Diversity in classroom, 163
Doctor of Education (EdD), 72
Doctoral strategic planning course, 68

Educare, 103
Education, 4, 5
Educational innovation, 27
Educational loan debt, 8, 91
Educational reform, 15
Educational trends in 21st Century
Educators, 4
  lack of educators' digital knowledge and institutional support, 130
  practical advice for, 132–133
Effective blended approach, 122
Effective facilitation, 150
Effective pedagogy, 124
Effective teaching strategies, 4
Ego-defensive (E), 74
eLearning
  digital transformation strategy, 42
  policy, 38
Emerging adulthood, 7, 91
Emotions, 69–70, 74, 102
Engagement, 5
  active, 35
  encouragement to promoting, 133
  lack of, 95
  learner, 145
  student, 7–8, 45, 120–122, 130
  substantive, 142
Evaluation framework, 68
Evaluation techniques, 66
Experiential learning, 7, 53–54, 153

Face-to-face in classroom, 163
Face-to-face T&L, 33
Face-to-face teaching, 40
Facebook Group, 153
Facial-response recognition research, 70

Facilitator, 44, 59, 72, 123, 127, 131, 145, 147, 150
Faculty of Information Communication, and Digital Technologies (FOICDT), 32, 39
Faculty of Medicine, 13, 16, 32
Five-stage learning model, 68
Flipped classroom, 45–46
Flipping, 44
Focus group
  data, 90–93
  data from, 96
  findings, 115–118
  LILAC Focus Groups, 97–98
  methodology, 96–97
Formative assessments, 72
Functional attitude theory, 70

G Suite, 162
  for education, 163
Gamification, 130
Generation Z, 152
GeoGebra, 45
Geometry Pad, 46
Global Reporting Initiative, 171
Goals, 90, 96, 104
Google Apps for Education training, 163
Google Classroom, 6, 42–43, 46
Google Docs, 45, 46, 162, 166, 171
Google Forms, 9, 39, 168, 172–174, 177–178
Google Meet, 42, 43, 46, 169
Google Sheet, 46, 168
Google Slides, 167
Google Suite Technologies, 42
Google Workspace, 8, 162, 164–165, 165–169, 178
  group assignments with, 169–175
  group projects with, 175–178
Griffith University Affective Learning Scale (GUALS), 73, 81
Group assignments with Google Workspace, 169–175
"Group awareness", 144
Group norms and peer review of group projects, 151
Group project evaluation rubrics, 149
Group projects with Google Workspace, 175–178
Group-based collaborative project application, 147
Group-based discussions, 142–144
Group-based learning, 8, 142, 159
  benefits of peer review for instructor, 152
  benefits of peer review for learners, 151
  challenges due to peer review, 152
  challenges in collaborative group projects, 149–151
  conflict resolution guide template, 158
  group norms and peer review of group projects, 151
  instructor/facilitator role in online pedagogical environment, 145
  learner–learner interaction, 146–147
  learners role in online pedagogical environment, 146
  past literature on use and application in online environment, 142
  prototype, 147–149
  purpose and setting of group projects in online pedagogical environment, 144–145
  role of social media and additional third-party tools, 152–153
  small group *vs*. large group, 142–144
  student group assignment evaluation rubric example, 157
Group-based projects, 144, 146, 150

Happiness (H), 74
Health Education Program Evaluation, 147
Health Program Evaluation course, 148
Health science professional training, 53
Health Sciences, 32
Healthcare training, 53
Higher Education (HE), 5, 32, 52
  creativity within, 121–122
  digital storyboarding benefits within, 123–125
  digital storyboarding in, 120
  public institutions of, 142
Human resource development (HRD), 71
Hybrid virtual classroom, 23

Ideas generation, 121, 126–127
iGen Generation, 91
In-browser IDE method, 45
Individual characteristics of faculty members, 5
Information and communication technologies (ICT), 32
  ICT Supporting Centers in T&L, 37
Information and communication technology (ICT), 4–5
  cloud-based office productivity, 8–9
  students' transition, 7–8
  in teaching–learning process, 5–6
Information literacy, 5
Information technology (IT), 35
Innovation in classroom
  at FOICDT–ICT Department, 45–46
  for online programs at CILL, 43–45
Innovation in higher education, 28
Innovative curriculum
  benefits, 61
  challenges, 58–61
  conceptual framework, 53–54
  COV ID-19 crisis, 52
  future of IPE program, 61–62
  methods, 55–56
  procedures, 54–55
  results, 56–58
Innovative learning space (ILS), 13
  design, 12–13
Innovative teaching, 17–18, 67
Innovative teaching and learning methods
  blended learning concepts, 33–35
  context, 37
  digital learning and transformation strategy at UoM, 43
  digital transformation of T&L at UoM, 47
  findings, 40
  FOICDT, 39
  ICT Supporting Centers in T&L, 37
  innovation in classroom at FOICDT–ICT Department, 45–46
  innovation in classroom for online programs at CILL, 43–45
  literature review, 32–33
  methodology, 39–40
  quality aspects and quality criteria for online and blended learning, 35–37
  results of students' satisfaction with use of ICT, 42
  results of use of technologically induced teaching methods, 41
  UoM Technology-enhanced Learning Policy 2017, 38
Institutional Review Board, 55, 93
Instruction-first model, 15
"Instruction", 103
Instructor, peer review benefits for, 152
Instructor/facilitator role in online pedagogical environment, 145

Integrated development environment (IDE), 45
Integrated program, 7
Integrating digital tools within higher education
  challenges of, 129
  finding balance between "offline" and "online" activities, 131
  lack of educators' digital knowledge and institutional support, 130
  perceptions of value, 130–131
  practical advice for educators, 132–133
  TEL, 129–130
(inter)active learning, 12
"Interaction logistics", 149
Interactive learning activities, 16
Interdisciplinary practice skills, 7
Internalization, 69
Interprofessional education (IPE), 53, 54, 60–61
  future of, 61–62
Interprofessional education curriculum, 7
Interprofessional ethics, 7, 54, 61
Interprofessional practice skills, 54
Interprofessional skills, 55
Intrinsic motivation, 21
Intrinsic motivation inventory (IMI), 20
iOS, 164
IT 360 Conference and Expo, 162

Jitsi, 43
Job interviewing, 8, 91
Journal of Interprofessional Care, 55
Joy (J), 74

Knowledge (K), 5, 74
'Knowledge-construction', 4
Kruskal–Wallis test, 77–79

Large group discussions, 142–144
Launching into Life after College (LILAC), 92, 98
  A Letter to Yourself, 100–101
  autobiography assignment, 99–100
  faculty team and course development, 92
  Personal Transition Guide, 101
  thread running through the course, 101–102
Learner-centered credit system (LCCS), 39, 43
Learner(s)
  engagement, 146
  learner–learner interaction, 146–147
  outcomes, 129
  peer review benefits for, 151
"Learning communities", 153
Learning environment, 6
Learning gain, 19–20, 23, 28
Learning management systems (LMS), 143, 164
Learning outcomes, 4, 35, 39, 44, 66, 81, 120, 122–123, 127, 130–133, 142
Learning process, 4
Learning spaces, 12–13, 16–18, 20
Level 1 evaluations, 71–72
Level 2 evaluation, 71–72
Likert scale-style questions, 93
Lilac Focus Groups, 97–98
LinkedIn Learning, 168

MAXQDA qualitative data-analysis software, 72
Meaning-centered education and meaning-centered learning framework (MCE–MCL framework), 67, 82
Meaning-centered learning, 7
Media production process, 124
Medical education, challenges for, 13
Medicine education
  challenges for medical education, 13
  complexity of teaching through CPS, 13–15

within design-based research study, 16–19
educational trends in 21st Century and design of innovative learning spaces, 12–13
obstacles to educational change and need for professional development, 15–16
quasi-experimental studies to test theoretical assumptions in wild, 19–27
teacher–researcher collaboration in, 13
Mental model, 71
Metacognition, 98
Microblogging, 153
Microcredentials, 52
Microsoft 365, 164, 178
Microsoft Word (MS Word), 163
Millennials, 152
Mixed-Mode Delivery, 40
Mobile phones, 9, 172–173
Money, 93–95
Moodle Platform, 6, 42–43, 164
Motivation, 4, 15, 19, 20–21, 23, 33, 90, 93, 102, 122, 125, 145, 176
MS Teams, 169
Multi-location learning, 12
Multiple analysis of variance (MANOVA), 77

Narrative, 121, 124–128
National Center for Higher Education Management Systems (NCHEMS), 66
National Institute of Learning Outcomes Assessment (NILOA), 66
Neofunctional typology, 70
Neoliberalism, 84

Objectives, 66
On-site experiences, 22–23
Online asynchronous discussions, 143
Online digital storyboarding platform, 126
Online game design platforms, 123
Online learning, 142
approaches, 32
pedagogy, 68
quality aspects and quality criteria for, 35–37
Online pedagogical environment
group projects in, 144–145
instructor/facilitator role in, 145
Online platform, use of, 40
Online teaching (*see* Virtual classroom)
Online teaching and learning (Online T&L), 33, 120
Open-ended questions, 55
Operating systems, 164

Paired-samples *t*-test, 20
Paradigm shift, 4–5
Paul–Elder model of critical thinking, 143
Pedagogy, 13, 35
creative, 122
effective, 124, 127
online learning, 68
Peer review
benefits for instructor, 152
benefits for learners, 151
challenges due to, 152
of group projects, 151
Peer scaffolding, 151
Peer to peer evaluation rubrics, 149
Perceived leadership, 142
Perceptions of value, 130–131
Performance-based curricula, 5
Personal experience teaching, 163
Personal Transition Guide, 99, 101
PEST plus Legal and Environmental (PESTLE), 9, 175–176
Political, Economic, Social and Technological (PEST), 175–176
Post-secondary courses, 163

Posteriori analysis framework, 71
Practical advice for educators, 132–133
Professional development, 16
Professional training programs, 53
Prototype, 147–149
Psychosocial
  dimensions, 8, 90–91
  wellbeing of students, 19

Qualitative analysis, 82
Qualitative data, 71
Quality aspects for online and blended learning, 35–37
Quality criteria for online and blended learning, 35–37
Quality Matters, 148
Quality Matters National Certification, 147
Quantitative data, 71
Quasi-experimental studies
  best timing for instruction, 19
  CPS-first in hybrid virtual setting, 22–26
  intervention and measures, 19–20
  research question, 19
  results of first design circle, 20–22
  teacher's reflection on teacher–researcher collaboration, 26–27
  to test theoretical assumptions in wild, 19
Question of the day (QOTD), 98, 100, 104
Questionnaire, 56

Reflection, time for, 128
Remote experiences, 22–23
Remote learning, 163
Research-based learning principles, 4
Reticent students, 103–104
Return on investment (ROI), 72

Satisfaction (S), 74
Scaffolding, 58, 67, 151
School of Nursing (SON), 53
Self-actualization emotions, 70
Self-determination theory, 15
Self-learning (*see* Distance eLearning)
Self-sufficient, 94
Sense-making, digital storyboarding and, 124–125
Shopify, 178
Simulation, 7, 54–62
Skill transferability, 8, 91
Skill-based training, 52
Skills, 5, 146
Skype, 38, 42
Small group discussions, 142–144
Smartphones, 6
Social adjustive category, 70
Social intuition theory, 102
Social learning theory, 142
Social media, 8, 38, 152
  challenges of, 153
Social presence, 146–147, 152
Social tools, 46
Social work, 53
Space matters for learning, 12
Spring 2020 session, 97
Storyboard That platform, 120, 125
  with undergraduate marketing students, 125–129
Storyboarding, 120–121
Storytelling, 124
Strategic planning, 82
Strengths, Weaknesses, Opportunities and Threats (SWOT), 175, 177
  analysis of business, 9
Student creativity, 122
Student employability, 8, 91
Student engagement, 7, 8, 45, 120–122, 124, 126
Student experience (SE), 39
Student feedback, 128–129
  on assignments and classroom activities, 97
  course affected them, 97–98
  on course culture, 97

Student group assignment evaluation rubric example, 157
Student Perceptions of Interprofessional Clinical Education–Revised (SPICE-R2), 55–56
Student Perceptions of Physician-Pharmacist Interprofessional Clinical Education (SPICE), 55
Student population, description of, 93–96
Student-centered learning, 5, 16, 44, 146
Student-centered teaching strategies, 5
Students' transition, 90
Success, 66, 93, 95, 98, 111–112, 162, 167
Survey data, 7, 57, 92–93, 111–114
Survey questions, 111–114
Sustainability Tracking, Assessment and Rating System framework (STARS framework), 177
Synchronous discussions, 144

Tablets, 6
Taxonomy, 68
Teacher preparation, 53
Teacher's reflection on teacher–researcher collaboration, 26–27
Teacher–researcher collaboration, 13
  challenges for medical education, 13
  complexity of teaching through CPS, 13–15
  within design-based research study, 16–19
  educational trends in 21st Century and design of innovative learning spaces, 12–13
  obstacles to educational change and need for professional development, 15–16
  quasi-experimental studies to test theoretical assumptions in wild, 19–27
"Teacher–student interaction", 4
Teaching
  complexity of teaching through CPS, 13–15
  for creativity, 122
  decisions, 102–104
Teaching and learning (T&L), 6, 32, 33
  ICT Supporting Centers in, 37
Technological advancement, 122
Technology, 143
  acceptance, 27
Technology-Enhanced Collaborative Learning (TECOL), 12, 13
Technology-enhanced learning (TEL), 12, 121
"Technostress", 129
Third-party cloud-based tools, 143
Third-party tools, 152
  challenges of, 153
Time for reflection, 128
Traditional storyboarding, 120
Traditional teaching approaches, 16
Transdisciplinary learning and assessment, 67
Transformation strategy, 33, 40, 42, 43
Transition, 90
  into adulthood, 91
  background and literature review, 91–96
  data from focus groups, 96–98
  demographics, 109–110
  description of student population, 93–96
  focus group findings, 115–118
  helping student change, 105
  LILAC, 98–102
  LILAC Faculty Team and Course Development, 92
  psychosocial and developmental dimensions of, 90–91
  summary of survey data, 92–93

survey questions and data, 111–114
teaching decisions, 102–104
Tutor, 123
Twitter, 153, 178

United Nations Global Compact, 171
United Nations Sustainable Development Goals, 171
University of Mauritius (UoM), 32, 33–35
digital transformation of T&L at, 47
UoM Technology-enhanced Learning Policy 2017, 38
Unknown, fear of, 95
Utilitarian (U), 74

Value-expressive (V), 74
Value(s), 5
of group work, 26
perceptions, 130–131
Versatility of online digital storyboarding platform, 126–127
Video conferencing, 38
Video tutorials sessions, 46
Video-based discussions, 143
Virtual classroom, 38
Virtual learning environments (VLE), 129
Virtual lectures, 43
Vocational skills-based education, 162
“Voice thread”, 143

Web-based support, 38
Well-constructed “discussions”, 143
WhatsApp, 38
Windows, 164
Workplace preparation, 162
World Health Organization (WHO), 53

Zoom (communication tool), 38, 42, 43–44, 46, 169