# **Pedagogy** Using Television Shows, Games, and Other Media in the Classroom

Edited by **Laura Dumin** University of Central Oklahoma

Series in Education



Copyright © 2024 by the Authors.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of Vernon Art and Science Inc.

www.vernonpress.com

In the Americas: Vernon Press 1000 N West Street, Suite 1200 Wilmington, Delaware, 19801 United States *In the rest of the world:* Vernon Press C/Sancti Espiritu 17, Malaga, 29006 Spain

Series in Education

Library of Congress Control Number: 2024932858

ISBN: 978-1-64889-901-0

Product and company names mentioned in this work are the trademarks of their respective owners. While every care has been taken in preparing this work, neither the authors nor Vernon Art and Science Inc. may be held responsible for any loss or damage caused or alleged to be caused directly or indirectly by the information contained in it.

Every effort has been made to trace all copyright holders, but if any have been inadvertently overlooked the publisher will be pleased to include any necessary credits in any subsequent reprint or edition.

Cover design by Vernon Press. Background image by Freepik.

# **Table of Contents**

	List of Figures	v
	List of Tables	vii
	Introduction	ix
	Laura Dumin	
	University of Central Oklahoma	
	K-12 Classrooms	1
Chapter 1	Virtual Reality: A Pathway to Experiential Learning	3
	Andrea Trudeau	
	Northern Illinois University	
Chapter 2	A World in Crisis! Using Games to Teach Human Rights Concepts in Elementary Classrooms	25
	Jon Simmons	
	University of Connecticut	
Chapter 3	Gamification in Education: How Gaming Can Be Used as a Tool to Drive Student Engagement and Increase Learning Outcomes for Children with Autism Spectrum Disorder (ASD)	39
	Jessica Wythe	
	Birmingham City University	
Chapter 4	To a Wide Audience: Writing in Multiple Modes and Genres	53
	Anastasia R. Wickham	
	Reach University	

	College Writing and Teaching	79
Chapter 5	"So, I Thought This was a Writing Class!": Podcasting as Decolonized Knowledge Making	81
	Jeaneen Canfield	
	University of Central Oklahoma	
Chapter 6	Teaching Composition through Digital Game Design	101
	Lia Schuermann	
	Texas Woman's University	
Chapter 7	Teaching Intersectionality and Using Podcasts: A Discussion of Student Responses	117
	Laura Dumin	
	University of Central Oklahoma	
	College Classrooms, Beyond the Writing Classroom	139
Chapter 8	Video Games and Fantasy Medievalism in the Music History Classroom	141
	Daniel Atwood	
	Northwestern University	
Chapter 9	Level Up your Classroom Management with Classcraft Gamification	157
	Leeda Copley	
	University of Central Oklahoma	
	List of Contributors	181
	Index	183

# List of Figures

Figure 1.1.	The Four Stages of Kolb's Experiential Learning Cycle	8
Figure 1.2.	Student Wearing Meta Quest 2 Head-Mounted Display	12
Figure 1.3.	A CoSpaces Edu Project	17
Figure 1.4.	Using Qlone to Scan a Shoe for a 3D Model	19
Figure 2.1.	Initial Draft of the Crisis Game Board	32
Figure 2.2.	Final Verion of the Crisis Game Board	34
Figure 2.3.	Sample Human Rights Game Cards	34
Figure 4.1.	Sample Chart: Genres and 7 <sup>th</sup> Grade Common Core State	
	Standards	57
Figure 6.1.	Example Analysis/Reflection Questions	105
Figure 6.2.	Visual for Assignment Tracks	107
Figure 7.1.	Intersectionality: Perception versus reality	119
Figure 7.2.	Word Cloud of Identities	123
Figure 8.1.	Class Materials	146
Figure 8.2.	Lesson Plan for One Hour and Twenty Minute Class	
	Session	147

# List of Tables

Table 4.1. American 7th grade standards for reading and writing	
Table 7.1. Socio-economic status and comments	125
Table 7.2. Ethnicity/skin-color and comments	126
Table 7.3. Gender and comments	
Table 7.4. Rightness and wrongness of using privilege	128

## Introduction

#### Laura Dumin University of Central Oklahoma

As technology shifts, so should our teaching methods. Sometimes, though, instructors struggle to see how or where they can make changes that move beyond the trendy. Allowing students to make TikToks? Ok, but why? Having students perform songs about Shakespeare? Cool, but how does that demonstrate topic knowledge? Building a website to show ancient indigenous cooking methods? Neat idea, but have students clearly linked this back to the historical concepts of the curriculum content? These questions are just the tip of the iceberg for figuring out how to embrace new technologies while still making sure that students take away some sort of topic knowledge.

Varying our teaching styles and content presentation can keep the content interesting to a wide variety of learners. While the idea of learning styles has been mostly debunked (Willingham et al, 2015), students can still benefit from moving beyond the traditional written presentation of material (Carter, 2021; Lawless, n.d.). This book will look at various classroom types, starting with primary and secondary education spaces, moving to the writing classroom in higher education, and then moving beyond the writing classroom. Authors present a variety of educational projects that seek to engage learners and help students to more deeply learn and retain the curriculum information.

#### **Book Chapter Overview**

The first section of the book looks at teaching in primary and secondary education classrooms. How can we engage students in exciting and meaningful ways to enhance their learning?

Trudeau gives us an example of using VR headsets to bring experiential learning into the classroom in a cost-effective and manageable way. While we can't take our students on all the field trips and we can't go to all the historical sites, with VR technology, we can bring those sites to the students. In so doing, we help our students to better understand history and cultural situations in ways that create deeper connections than just reading or watching videos can.

Simmons looks at teaching hard concepts such as human rights through a boardgame. Trying to teach younger students about heavy concepts can be

challenging because of their emotional development and because of parental concerns. Games can take some of the pressure off teachers to teach all the nuances while giving students a chance to genuinely participate in their own learning.

Wythe takes on the engagement of students with autism spectrum disorder (ASD), looking at gamification strategies to help students want to participate in the learning. Two studies are presented here to show different strategies for employing gamification to knowledge for students.

Wickham looks at middle school student writing projects and how adding a multi-genre approach to teaching can help students build better projects, noting that "the best teachers cannot rely on static curricula because they know that students' needs, interests, and motivations change, just as the world around us evolves" (p. 51, this volume). She also looks at some of the impacts of artificial intelligence (AI) on our classrooms and our students.

The next section of the book focuses on higher education and writing classrooms. Canfield discusses the use of podcasts and student reactions to the assignment. She also gives an answer to the question "Are podcasts academic writing?" Incorporating podcasts into her teaching allows students to have the opportunity to learn about audience and presentation as well as word-choice, making this an engaging way to teach students about what can count as academic writing.

Schuermann focuses on games and how they can be used in the higher education classroom. This chapter presents a themed first-year composition course based on digital game design and development that utilizes digital games' affordances through four major writing assignments based on digital game composition writing and collaborative writing, concluding with suggestions for instructors interested in engaging students in creative ways and in developing their own writing courses based on digital game design and development.

Dumin focuses on using podcasts, TV shows, and articles to teach about intersectionality and DEI topics. Students had the opportunity to explore the American Dream and what college education can do for social mobility, while also exploring their own identities and how they fit into their communities. Student responses to the project and the use of podcasts are included here, as well as a discussion about how podcasts impacted this particular classroom.

The last section of the book looks at classrooms outside of the writing classroom, thinking about ways to creatively engage students in the content.

Atwood introduces us to the use of video games and movie music to help students relate to Medieval music and the history of the music. Noting that little has survived from the original music, and students may not have heard much of the music outside of popular culture depictions, this can be a way to bring students back to the lessons and actively engage in learning the material. Copley discusses the use of clear gamification goals to motivate students to learn more deeply, noting also that poor gamification strategies stress students out and can lead to negative learning goals. She gives the example of using Classcraft.com, a free resource, to help increase students' learning and retention of information.

#### Conclusion

The purpose of this book is to highlight creative and innovative teaching methods that can more deeply engage students across educational contexts. The chapters provide examples of using technology, games, multimedia projects, and other novel approaches to make content more relatable, participatory, and memorable for learners. While adhering to curriculum standards and learning objectives remains important, these chapters illustrate the value of varying instructional formats to promote enthusiasm for learning.

A key takeaway is that there are many untapped opportunities for experimenting with new platforms and assignments while still ensuring academic rigor. For instance, several chapters discuss how multimedia projects enable students to demonstrate comprehension of topics in alternative ways, apply concepts practically, collaborate with peers, and gain technical abilities—all highly relevant skills. Finding the right balance is critical; poorly implemented gamification risks trivializing content rather than making it stick. Hence following established best practices around goal-setting, scaffolding complex tasks, providing actionable feedback, and linking novel activities directly to core academic concepts is vital.

Much work remains in systematically evaluating the impacts of creative teaching methods on indicators like knowledge retention over time, critical thinking abilities, metacognitive skills, and perceptions of learning. Nonetheless, the preliminary evidence and examples shared here make a compelling case for diversifying instructional strategies beyond traditional lectures and writing assignments. The authors have provided springboards for teachers to adapt existing ideas or brainstorm new innovations tailored to their subjects, students, and institutions. With some risk-taking and refinement over time, such approaches may meaningfully catalyze student motivation and comprehension.

#### References

Lawless, C. (n.d.) *Multimodal learning: Engaging your learner's senses.* LearnUpon Blog. https://www.learnupon.com/blog/multimodal-learning/

Carter, A. (2021). *Exploring the benefits of blended and multimodal learning*. https://www.astoncarter.com/en/insights/articles/exploring-the-benefits-o f-blended-and-multimodal-learning

Willingham, D. T., Hughes, E. M., & Dobolyi, D. G. (2015, July 15). The scientific status of learning styles theories. *Teaching of Psychology*, *42*(3). https://doi.or g/10.1177/0098628315589505

# **K-12 Classrooms**

#### Chapter 1

# Virtual Reality: A Pathway to Experiential Learning

### Andrea Trudeau Northern Illinois University

**Abstract:** Trudeau gives us an example of using VR headsets to bring experiential learning into the classroom in a cost-effective and manageable way. While we can't take our students on all the field trips and we can't go to all the historical sites, with VR technology, we can bring those sites to the students. In so doing, we help our students to better understand history and cultural situations in ways that create deeper connections than just reading or watching videos can.

Keywords: VR headsets; experiential learning; history; culture

#### Introduction

\*\*\*

Credited with founding the field of virtual reality (VR), Jaron Lanier asserted, "'Virtual' means something that exists only as an electronic representation . . . It's as if it were there even if it isn't" (Heilbrun, 1989, p. 110). By harnessing the power of VR, educators of today have the ability to transport students to times and places that would otherwise be inaccessible to them in a traditional classroom setting, providing them with opportunities to witness key moments in history firsthand, work on the International Space Station, or even travel through the bloodstream to learn how blood cells function. Immersive VR provides students with captivating learning experiences where they may visit the world all around them or worlds within themselves—places they may never see otherwise due to numerous factors, including cost, conflicts in time or schedule, or potential risks (Alhalabi, 2016). Through the power of VR, what was formerly inconceivable now becomes possible without ever leaving the confines of the classroom.

Virtual reality is just one of several forms of instructional technology that is increasingly being harnessed in smart learning environments (SLEs) found in classrooms today. "Smart learning refers to learning in interactive, intelligent, and personalized environments with the support of cutting-edge digital technologies and services" (Chen et al., 2021, p. 2). Gwak (2010) suggested smart learning prioritizes learners and content over devices while advocating for intelligent, effective, personalized learning facilitated by an advanced technological infrastructure. In a smart learning environment, teachers harness adaptive, innovative technology, such as VR, to engage a variety of learners. Through VR, students experience a virtual environment that mimics reality through 360-degree images or videos and stereoscopic sound, which promotes the interactive, adaptive, and personalized learning experience expected in an SLE.

Currently, VR is expected to have a compound annual growth rate of 37.9% in the global education market (The Business Research Company, 2023) and is most frequently being applied through science- and engineering-related subject areas, especially at the secondary level (Luo et al., 2021; Tilhou et al., 2020; Zhang & Wang, 2021). In these settings, students are provided with hands-on opportunities to both construct and deconstruct models and prototypes, practice using various technologies related to particular fields and run simulations. Consequently, VR has been shown to improve student engagement, provide opportunities for simulated real-world experiences without ever leaving the confines of the classroom, and enhance students' short-term and long-term retention of information.

As educators today strive not just to reinforce students' academic skills but also to foster their overall well-being, VR may be harnessed as a vehicle to support students' social-emotional learning (SEL) and promote global consciousness through immersive and interactive cinematic virtual reality (CVR) films. In CVR films, viewers are enveloped in a 360-degree experience with the story taking place all around them. This grants them the power of an omnidirectional view. In other words, they are no longer confined to the traditional rectangular view prescribed by the film director; instead, they can determine where they wish to direct their gaze as the story progresses around them, even interacting with the story in some instances. Consequently, CVR provides students with a means to experience "a story that you would remember with your entire body and not just with your mind" (de la Peña, 2015, 00:06). Whether a student is engaging in a hands-on VR activity or consuming a CVR film, they have a powerfully visceral experience that can have a profound impact on them both in the short-term and long-term.

#### The Power of Immersion

Many highly immersive VR systems of today are composed of a head-mounted display (HMD) and handheld controllers. HMDs come in many forms—some that require the user to hold the device to their face, while others include head

## PAGES MISSING FROM THIS FREE SAMPLE

## **List of Contributors**

**Andrea Trudeau**. She is a PhD candidate in Instructional Technology at Northern Illinois University and a library information specialist with 26 years of K-12 teaching experience in a public middle school setting. Throughout her career, she has taken a student-centered approach while embracing innovative teaching practices and technology tools to engage and empower her students. In turn, this inspired her to research the effects of cinematic virtual reality on the empathic responses of adolescent students. Learn more at noshhlibrarian.com

**Jonathan Simmons**. Postdoc researcher at the University of Connecticut. He holds a PhD in Curriculum and Instruction and has been an elementary school teacher in the United States and internationally. His research explores innovative instructional approaches and the development of intercultural competence in pre-service teachers.

**Jess Wythe**. Early Career Researcher and Lecturer for the Department of Childhood Youth and Community at Birmingham City University in the United Kingdom. She has research interests in gaming, educational school trips, and creative and innovative pedagogical interventions for children with autistic spectrum disorders. Jess is currently researching the learning and educational benefits of school trips to heritage sites for children and young people with special educational needs for her doctorate thesis, with ambitions of contributing towards making learning more engaging and accessible for all.

**Anastasia R. Wickham**. She began her career as an educator by teaching secondary English, Spanish, and ELL classes, as well as working as a reading specialist. This experience, combined with a Ph.D. in Instructional Leadership and Academic Curriculum and over a decade in higher education, informs her current work in supporting pre-service teachers in underserved urban and rural communities. Currently, Dr. Wickham focuses on providing an accessible, affordable pathway to a job-embedded teaching degree through her work at Reach University, where she serves as a member of the faculty and an administrator.

**Jeaneen S. Miller Canfield**. Visiting Assistant Professor of English at the University of Central Oklahoma. Her scholarship has appeared in Praxis: A Writing Center Journal, Composition Forum (forthcoming Fall 2024), a book chapter in Teaching Critical Reading and Writing in the Era of Fake News, and she has presented her work at various conferences. Her research interests include the intersections of cartography and writing pedagogy, visual rhetoric, multimodal composition, digital literacies (including AI tools), and critical pedagogy. She also is deeply committed to helping students gain their own voice and learn to

publish their works. Currently, she is co-authoring two works with former students. One project is about students' use of AI writing bots (chiefly ChatGPT), and the other is about her journey, as well as a student's insightful perspective, regarding accessibility for visually impaired students.

**Lia Schuermann**. She is a mixed Chicana PhD candidate at Texas Woman's University (TWU)'s Rhetoric program. She is a Graduate Teaching Assistant (Lead Instructor) teaching in TWU's First-Year Composition (FYC) program. Her teaching focuses on how digital and multimodal composition can create alternative spaces for students to collaborate and build community. She's presented at the Popular/American Culture Association (PCA) and Computers & Writing conferences in 2023 on how digital games and game design can be part of FYC and writing courses.

**Dr. Laura Dumin**. She obtained her PhD in English from Oklahoma State University in 2010. She is a professor of English and Technical Writing at the University of Central Oklahoma. Laura has been experimenting with transformative learning (TL) tools and scholarship of teaching and learning methods (SoTL) in the classroom for over 7 years. She finds that when students are engaged in the lessons, learning can happen organically, leading to more interesting class periods and longer-term gains in understanding concepts. Laura mixes her background in technical writing into all her courses, bringing ideas of audience and clear communication into assignments.

When she is not teaching, she works as a co-managing editor for the *Journal of Transformative Learning*. Laura was a campus SoTL mentor, directs the Technical Writing BA, and advises the Composition and Rhetoric MA program. She has also been exploring the impact of AI and large language models on writing classrooms and runs a Facebook learning community to allow instructors to learn from each other. https://www.facebook.com/groups/632930835501841

**Daniel Atwood**. Doctoral student in musicology at Northwestern University and a guitar instructor at Three Rivers College. His dissertation explores early modern English popular music culture, and his research interests also include video game music and ethnographies of musical experiences in everyday life. He has presented his research at the conferences of the Society for Seventeenth-Century Music, the Association Répertoire International d'Iconographie Musicale, the Royal Music Association, the Symposium on Medieval and Renaissance Studies, and the Popular Culture Association.

**Leeda Copley.** A lifelong gamer who also happens to hold a PhD in Ageing Studies. She works as an associate professor for the University of Central Oklahoma, so she has enough money to buy new games and have a home to store all her gaming consoles. She teaches sociology and gerontology courses and does research that focuses on the intersections between gender and pop culture.

## Index

#### A

A+, 170 active learning, 7, 8, 14, 23 active participation, 7 Adolescent Measure for Empathy and Sympathy, 16 affective empathy, 16 age limitations, 13 agency, 14 all-in-one VR headsets, 11 American Academy of Ophthalmology, 13, 23 analysis, 8, 16, 21, 24 Apple Vision Pro, 11 artificial intelligence, 6, 18 assignment, 83, 84, 85, 87, 89, 90, 91 audio essay, 83, 84 authentic student voice, 58 Autism spectrum disorder (ASD), 39, 40, 42, 43, 45, 46, 47, 48, 51 avatar, 162, 167

#### B

background knowledge, 7, 14 BadgeOS, 171 BadgeS, 171 BadgeStack on WordPress, 171 BadgeVille, 171 Bailey, Nancy M., 143, 154 ballad, 142, 146, 149, 150, 151, 154 Barton, Georgina, 143, 154 Blender, 19 Butt, John, 144, 154

### С

Canada, 166 chant, 143, 144, 145, 148 character class, 167 Chris Milk, 9, 14, 19 cinematic virtual reality (CVR), 4, 13, 14, 15, 16, 22 Classcraft, 165, 166, 167, 168, 169, 170, 171, 172, 173, 175 ClassDojo, 171 ClassVR, 5, 11, 12, 13, 20 cloud-based tools, 17 cognitive empathy, 16 collaboration, 10, 20, 103, 109 comfort (VR), 10 compositional choices, 58 comprehension, 7, 9, 10, 15, 20, 22 connection, 8, 11, 14 constructivism, 6, 7 consumption (of VR), 14, 16, 17 Cook, James, 143, 153 Cook, Karen, 143 CoSpaces Edu, 17, 18, 21 CourseSites, 170 creation (of VR), 16, 17, 18, 19 Credly, 171 critical thinking skills, 5 Crystals, 166 cultural rhetorics, 83, 99 culturally relevant pedagogy, 141, 143, 154 Curatr, 171 cybersickness, 13

### D

David Kolb, 7, 8, 9, 22 Deci's Self-Determination Theory, 159 delineate, 83 Diagnosys, 171 digital natives, 158 Disneyfication (or Disneyization), 165 disruption, 83 diverse perspectives, 15 *Dragon Age Inquisition*, 141, 146, 147, 149, 150 Dynamic adaptation, 170

#### Е

E. Cushman, 83 edutainment, 163 embodiment, 14 emotional response, 5, 14, 15 empathy, 14, 15, 21, 22, 23, 24 engaged learning, 4, 14, 16, 141, 142, 145, 149, 152, 154 English/Language Arts (ELA), 53 evaluation, 16 Experience points (XP), 166 experiential learning, 7, 8, 9, 10, 16, 22 experiential technology, 10, 14, 15, 20 eye development (VR), 13

#### F

film, 141, 142, 147, 149, 152, 153 Fink, Larry, 147, 155 5 Cs, 20 FlipQuiz, 171 free, 165 freedom to fail, 161 freemium, 165 fun, 164

#### G

Game mechanics, 102 Gameplay, 102 games, 29 Gamification, 30, 39, 41, 42, 43, 47, 48, 50, 102 gaming console, 11 gender-neutral choices, 167 global citizens, 15 global consciousness, 4, 15, 23 Gold, 167 Google Arts and Culture, 14 Google Cardboard, 10, 12 Google Pixel, 11 Grove Music Online, 145, 146, 150, 155 Gushee, Rastall & Klausner, 145

#### Η

Haefeli, Sara, 143, 155 Haines, John, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 153, 155 handheld controllers, 4 head-mounted display (HMD), 4, 5, 8, 14, 16, 22 health (VR), 13, 23 Hearts, 166 higher-order thinking skills, 16 high-performance computer, 11 Home After War Returning to Fear in Fallujah, 16 Houghton Mifflin Harcourt (HMH), 166 How Do We Love Thee, 16 HTC Vive, 11

human rights education game, 26, 31 hygiene, 10

#### I

identities, 83, 85 immersion, 3, 5, 6, 16, 23, 24 interactive, 4, 5, 6, 17, 20 interactive storytelling, 6 intermittent space, 14 International Age Rating Coalition (IARC), 13 intersectionality, 118, 120, 121, 132, 135

## J

Jaron Lanier, 3, 22 John Dewey, 6, 7, 21

#### K

Kahoot, 171 Kamien, Roger and Anita Kamien, 145, 146, 147, 155 Ken Bain, 160 Kim Case, 118, 121 Kimberlé Crenshaw, 118 Kolb's Experiential Learning Cycle, 7, 8

#### L

language learning, 6 leaderboard, 163, 167 learner-centered paradigm, 16 learning goals, 10 learning outcomes, 8, 9, 24 Lev Vygotsky, 6, 24 literacy, 55, 82, 84, 87, 89, 91, 98

#### Μ

management of VR devices, 10, 12 math, 40, 42, 44, 46, 49, 50 medieval, 141, 142, 143, 144, 145, 147, 148, 149, 150, 151, 152, 153, 154, 155 Merge, 10, 17 Meta Quest, 11, 12, 23 Mezirow, 117, 122 minstrel, medieval, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151 mirrors, windows, and sliding glass doors, 15 mobile devices, 19 **MOOCs.** 165 Moodle, 170 motivation, 8, 9, 15 Multigenre Research Papers, 56 multimodal composing, 64, 81, 82, 83, 84, 85, 99 multimodal tools, 60 music, 141, 142, 143, 144, 145, 146, 147, 148, 150, 151, 152, 153, 154, 155

### Ν

Notes on Blindness, 16 Nugent, Simon, 151

#### 0

Oculus Rift, 11 Oh, Grey Warden, 147 Oklahoma, 171 omnidirectional view, 4 *On the Morning You Wake (to the End of the World*, 16 Once We Were, 146, 147, 150 Open Badges Project, 171

#### Р

Packback discussion board, 173 Packington's Pound, 146, 147, 150, 151 pedagogy, 55 personalized, 4, 6, 13, 20 photogrammetry, 18, 19 photosphere, 18 Pico VR, 11 Play-based pedagogy, 172 podcast, 82, 84, 87, 88, 90, 117, 118, 128, 134, 135 Polycam, 19 popular culture, 141, 142, 143, 144, 152, 154 Prensky, Marc, 143, 155 presence, 5, 16 privilege, 119, 120, 121, 124, 127, 128, 130, 131, 132 problem solving, 5 prosocial behaviors, 14

## Q

QizBox, 170 Qlone, 19 quest, 169

#### R

Ragnar the Red, 149 real-world experience, 4, 7 RedboxVR, 11, 12 remote learning, 6 Ribbon Hero, 171 Rudine Sims Bishop, 15, 21, 22 RYOT, 14

#### S

safety (VR), 10, 13, 23 Samsung, 10 schemata, 8 Scratch, 17 sensitivity, 172 sensors, 5, 11 Shipka, 82 simulation, 4, 5, 20 SketchUp, 19 skill level, 10, 18 skybox, 18, 19 Skyrim, 141, 146, 147, 149, 150, 151 smart learning environments (SLEs), 3, 4 smartphone, 10, 11 social-emotional learning (SEL), 4, 15, 159 Socrative, 171 soft skills, 157, 159, 173 South Wind, 146, 147, 150 Stevens, Butterfield and Karp, 144 stories, 82, 83, 86, 87, 89, 90, 91, 98.99 storytelling, 162 student-centered, 6 synthesis, 16

#### Т

teaching, 117, 118, 128, 135 teaching-reflection journal, 87 technology, 40, 42, 44, 45, 47 technology infrastructure, 10 tethered headsets, 11 *The Displaced*, 15, 16 *The Key*, 16 the ultimate empathy machine, 14 360-degree experience, 4, 13 Tinkercad, 19 Tom Romano, 56 tracking, 11 traditional learning, 7 transformative learning, 117, 119 translingual, 83 *Traveling While Black*, 15, 16 two-dimensional, 14

#### U

Unity 3D, 18 Universal Declaration of Human Rights, 25 Universal Design for Learning (UDL), 54

### V

video games, 141, 142, 143, 149, 152, 153, 154, 155 virtual field trips, 5 virtual reality (VR), 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24 Virtual Reality Systems, 10 virtual worlds, 11, 17 Vula Sakai, 170

#### W

Walker, Robert, 143, 155 *We Live Here*, 16, 20 whole child, 15 Windows Mixed Reality, 11

#### Y

YouTube, 14, 146

## Ζ

Zancanella, Hall, and Pence, 143