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The Pedagogy of One Schoolhouse

Corinne Dedini, Director of Academics Brad Rathgeber, Executive Director

Introduction

One Schoolhouse transforms education and empowers learning by leading through innovation, inspiring learners, and partnering with schools and organizations. One Schoolhouse courses are intentionally developed to be learner-driven, based on seminal and emerging constructivist education research. At One Schoolhouse, this learner-driven pedagogy values relationships and mastery of competencies. As we innovate in the online space, One Schoolhouse employs disruptive and entrepreneurial principles to change the learning experience. By redefining learning approaches and outcomes, One Schoolhouse builds programming that meets students, teachers, and partner schools where they are and changes the lens through which they learn and grow.

One Schoolhouse effects change from the inside out. Free to innovate in ways different from traditional schools, we create space where schools can explore new ways of teaching and learning through us before changing their own practice. When a school enrolls students in our online classes, invites One Schoolhouse to collaborate on professional development with its faculty, or encourages a teacher to apply to teach with us, that school not only gains a partner in delivering on its mission, but it also gains a safe sandbox in which to experiment with new approaches to education. One Schoolhouse assumes the entrepreneurial risks associated with disruptive innovations,¹ risks that we see as possibilities fundamental to the space in which we operate but which we also recognize cannot be indiscriminately adopted in brick-and-mortar schools.

One Schoolhouse is an organization where strategic initiatives are shaped by both the needs of our partner schools, teachers, and students, and by disruptive innovations that effect educational change. As a supplemental school, One Schoolhouse does not endeavor to replicate holistic school life, but we are fundamentally about people. Our approach to teaching and learning is predicated on the research suggesting that schooling as we know it must change. What follows is a summary of the most relevant literature, from expert opinion to empirical research to broad surveys, related to the main tenets and values of One Schoolhouse.

Overarching Pedagogical Approach

We start with what all thriving schools do well: build authentic relationships with students. Recognizing that the studentteacher relationship forms the foundation for all learning,² we position the learner at the center of the course. By designing backwards³ from the learner, the teacher is liberated from a content-driven curriculum. Free to focus on cultivating teacherstudent and student-student relationships, the teacher evolves into the role of coach and the pedagogy transitions from a teacher-driven to student-centered⁴ to learner-driven⁵ classroom environment that is both personalized and competencybased.⁶

Our teachers, most of whom are full-time teachers in independent schools, say that teaching with us is the best professional development they have ever done. Through One Schoolhouse training, they cultivate new skills and see their pedagogy and students through a fresh lens. Our competency-based, personalized pedagogy repositions teachers as coaches and students as learners, freeing both to allow the learning to be driven by the educational experience. The ability to learn online is an essential college and career readiness competency.⁷ While many students are initially attracted to One Schoolhouse courses because they are looking for a particular class or for the flexibility afforded by the online platform, One Schoolhouse students report that the breadth of skills developed exceeds the curricular objectives.



Personalization is a pedagogical approach where educators harness the power of technology to chart a new direction for content sequences, academic proficiencies and student agency. At One Schoolhouse, a classic model of constructivist learning promotes student agency, where learning is relevant, hands-on, and inquiry-driven.⁸ The transition to this learner-driven approach requires teachers to first equip students with the capacity to measure their knowledge and skills,⁹ and then to give students choice in what and how they learn.¹⁰ The tools of personalized instruction increase efficiency and effectiveness around differentiation, remediation, and project-based learning.¹¹ Choice increases engagement, and engaged students learn more.¹²

One Schoolhouse is redefining learning to be based on the development of competencies. We expansively define competencies to be tools cultivated based on skills developed along curricular pathways. Competencies are bigger than curricular objectives or subject-specific skills, and therefore liberate the teacher from the constraints of a content-based syllabus. Competency-based education puts the learner at the center by personalizing the learning experience down to learners' strengths and needs, so all One Schoolhouse courses start with students' self-assessment of their own goals, learning preferences, and motivations. When combined with self and peer formative assessment, teacher feedback links goals to the development of competencies in a way that promotes deep skill development and sustained mastery.¹³ In this learning environment, personalized pathway options – alternate learning activities available to students – encourage students to spend the bulk of their learning time in the research, exploration, interactive, and problem-solving activities that shape neural capacity.¹⁴ Summative assessments range from traditional testing to collaborative, creative projects, all of which contribute to the collection of eportfolio artifacts that demonstrate milestones on the learner's journey to mastery.

The architecture of education at One Schoolhouse is fundamentally different because we have reimagined the role of the teacher and the student in the learning process. With the time-tested teacher-student relationship as the cornerstone, One Schoolhouse's teachers function as coaches when they use the building blocks of our personalized, competency-based pedagogy to equip learners with both the aptitude and freedom to wonder, evaluate, apply, and do. By providing students with the opportunity to learn differently, we lay the foundation for school and for life.

Approaches in Single Gender and Adult Learner Classes

One Schoolhouse has been committed to being a research-driven school since the founding of our first program, the Online School for Girls, in 2009. Research on standing best practices for teaching in single-gender classrooms, coupled with pioneering online practices, drive the unique guiding pedagogical approaches for girls, boys, and professional development. Girls' courses include specific emphasis on connection, collaboration, creativity and application, while boys' courses are grounded in trust, meaning, and character. Professional development for teachers and administrators builds from a growth mindset towards emerging practices in tech-supported curriculum design and delivery.

As a pioneer in the online learning space, One Schoolhouse has learned that the success of our pedagogical approach is contingent on how it is delivered. Structure and organization are essential operational elements in the online, personalized learning environment.¹⁵ For both our student and adult courses, One Schoolhouse recruits creative, warm, detail-oriented teachers with a growth mindset.¹⁶ Through intensive, ongoing teacher training, One Schoolhouse teachers are equipped with the tools necessary to build and measure the effectiveness of our model. Critically evaluating the paradigm shift is an essential component of any revolution. As such, rigorous metrics by which we measure the evolution of our pedagogy promote both growth and reflection on everything from time allocation to competency development. The metacognitive elements of learning matter at One Schoolhouse.¹⁷

Online School for Girls

Great girls' school environments create settings in which girls connect to each other, collaborate with each other, express creativity, and apply what they learn to real-world problems. Thus, girls' courses are built on four pillars: connection, collaboration, creativity, and application.

Connection is the hallmark of the Online School for Girls experience because girls thrive in an online environment of connectedness.¹⁸ Not only do girls learn better where technologies establish meaningful connections among participants¹⁹ and serve a social function,²⁰ but encouraging students to make connections across disciplines develops real-world problem solving skills, such as the ability to synthesize knowledge,²¹ necessary in the workplace.²² Through practices that emphasize



connection, Online School for Girls builds programming based on how girls learn best while preparing girls to lead in today's workforce.

Girls' learning environments should be collaborative and holistic,²³ which fosters the development of critical thinking.²⁴ Collaboration, particularly in STEM classes increases confidence in girls, leads to higher quality work, improves understanding of content, increases course completion rates and exam performances, and increases enjoyment of course work.²⁵ Women value cooperation in asynchronous classes and are more successful in the technology arena when they work collaboratively.²⁶ Collaborative online work also increases cultural competence, including the ability to communicate and empathize with diverse individuals,²⁷ and global literacy.²⁸ Online classes are inherently designed to support intercultural and global collaboration. Online School for Girls teachers promote regular collaboration in their classes.

Creativity is a skill that can and must be fostered by schools as careers requiring analysis give way to those favoring creativity.²⁹ According to Wagner and Compton, experts in innovation, curiosity and creativity are not innate traits, but rather skills to be cultivated through intentional education.³⁰ The tendencies of girls to please their teachers and to take to heart criticism for incorrect responses can lead them to be risk-averse, so Online School for Girls teachers scaffold the development of creativity by demonstrating multiple approaches to problem-solving, emphasizing process over product, and encouraging a variety of interpretations to feedback.³¹ Girls need to see technology as a tool³² for creative problem solving³³ and creative presentation of ideas.³⁴ Personalization within online classes can also support creativity, allowing students to pursue and develop original projects in their own area of research. Online School for Girls teachers build learning environments that nurture, value, and reward creativity and creative thinking.

Creative uses of technology offer Online School for Girls students the opportunity to think critically and search for solutions to real-world problems. The social/ethical purpose should never be far below the surface when teaching girls, so objectives must be meaningful and applicable to the real world.³⁵ Girls want to experience and effect social transformation,³⁶ so Online School for Girls teachers ask students to apply what they are learning to current events and global issues. Application is part of all summative assessment at Online School for Girls.

Online School for Girls is especially committed to girls' courses in the STEM fields³⁷ because single-gender education cultivates girls' interest in engineering³⁸ and computer science.³⁹ In an attempt to identify practices that improve girls' interest in STEM, research cited by NCWIT found that: 1) the curriculum must be relevant, 2) pedagogies must encourage collaboration, 3) opportunities must exist for risk-taking and making mistakes, and 4) learning must be active, hands-on, and project-based.⁴⁰ Our curricular pillars, delivered in the online space and all-girl environment, encourage more girls to pursue STEM-related fields of study because we actively work against the prevailing cultural messages about girls and STEM.^{41, 42}

Our girls' classes function best when we elevate the roles of connection, collaboration, creativity, and application in the learning process. For boys, the learning environment must create space to be emotionally honest.

Online School for Boys

Three core values—trust, meaning, and character—set the framework for the Online School for Boys program. These core values tie closely to effective research-based practice in traditional boys' school learning environments and are adapted for the online medium. As in traditional boys' schools, these values are rooted in the supporting beliefs of honesty, integrity, purpose, engagement, effort, connection, accountability, self-efficacy, novelty, activity, competition, and humor.

Boys and faculty members must develop deep trust in order for boys to find success. Personal interaction that results in trust between the teacher and the student is a central component of effective education of boys. Thus, the pedagogy focuses clearly on developing trust, giving space for relationships to develop, and inviting boys into the learning process through pathway choice, self-reflection, and consistent feedback.

Learning must have meaning. It should be tied to boys' understanding of the world around them, and help push that understanding. Games, competition, activity, and project-based approaches all have a role to play in creating an effective learning environment. A student-centered approach that employs a project-based learning pedagogy in which products are created (particularly those that have use) resonates with boys, especially as they connect across diverse landscapes and socially



significant differences. Online School for Boys teachers develop activities through which boys make products that go, are useful, illustrate a skill or idea, and engage via gaming, performance, inquiry, and team work/competition.⁴³

It is essential to simultaneously develop the character of the boys and engage them in course work. In boys' schools this is often best accomplished through the process of self-realization and development of empathy. And, individuality, self-respect, and integrity towards others can be encouraged when teachers demonstrate their own individual spirit through humor and drama. Boys rise to the challenge of shared responsibility and are willing to express the vulnerability that leads to growth in the online learning space. Because boys tend to elicit the instructional strategies that they need to learn best,⁴⁴ Online School for Boys teachers use structure and intentional design to increase efficiency and challenge for boys. By asking boys to lean into ethical questions and create their own character narrative, we dissolve the barriers that prevent boys from diving deeply into how they are shaped by both the urgency and importance of the learning experience.⁴⁵

Professional Development for Teachers and Administrators

One Schoolhouse strives to grow in response to learner and school needs. We nudge our partners to follow our lead. As our pedagogy evolves, One Schoolhouse serves as a catalyst for educational change. We make our pedagogy available through professional development courses and school consulting so that schools can leverage our work to empower learning and transform education in their schools and around the world. We create space for discourse where change is nurtured and emerging practices are explored.

Influenced by experts in adult learning theory, One Schoolhouse's approach to professional development is personalized to the participant's deficiencies, readiness, and motivation to learn.⁴⁶ Teachers are inherently life-long learners who engage in professional development because it is relevant to their craft,⁴⁷ so their needs are different from students' needs. By building self-directed pathways in our professional development programming that allow adult learners to develop new competencies, One Schoolhouse outfits teachers and administrators with the ability to harness the power of technology to more effectively serve students in face-to-face schools. Participants demonstrate mastery through connection, reflection and/or application.

Innovation is the hallmark of online education; professional development is our way of sharing what we have learned with our friends.

Conclusion

In 2009, Harpeth Hall School (TN), Holton-Arms School (MD), Laurel School (OH), and Westover School (CT) responded to a need for an innovative way to prepare girls for college by founding the world's first online independent school. They envisioned a vibrant, nimble school that would foster a richly collaborative learning experience for girls, and they aspired to form a consortium that would serve their own students as well as the wider world. Since 2009, we have remained faithful to our founders' vision, and in 2015, this legacy of revolution demanded another disruptive pedagogical innovation. The disruptive innovation propelling us forward is personalized, competency-based education.

Neither education nor learning is static at One Schoolhouse. As such, we are not afraid to experiment. We engage in ongoing evaluation, constantly soliciting feedback from students and encouraging reflection amongst our faculty and administrators. We are ravenous consumers of new ideas and believe that we learn by doing, sharing, iterating. While we are not able to predict the future of teaching and learning, we can predict with certainty that education must change. We have an obligation to today's youth and tomorrow's society to reimagine school. As such, our student courses are designed to promote student agency and our professional development programming, which meets teachers and administrators wherever they are, invites them to put the learner at the center of their teaching.

Fundamentally, we use established and emerging technology tools to move pedagogy from teacher-driven or student-centered to learner-driven. We look for partners who share our growth mindset and who believe that education is about learning. Together, we can and will effect change.



¹ Kaplan, Soren. "Leading Disruptive Innovation." Ivey Business Journal July-Aug. 2012: n. pag. Web. 1 Feb. 2016.

² Rimm-Kaufman, Sara, and Lia Sandilos. Improving Students' Relationships with Teachers to Provide Essential Supports for Learning. Washington, D.C.: APA, 2016. American Psychological Association. Web. 9 Feb. 2016.

³ McTighe, Jay, and Grant Wiggins. Understanding by Design Framework. Alexandria: ASCD, 2012. ASCD. Web. 1 Feb. 2016. ⁴ Huba, Mary E., and Jann E. Freed. Learner-centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning. Boston: Allyn and Bacon, 2000. Print.

⁶ Patrick, Susan, Kathleen Kennedy, and Allison Powell. Mean What You Say: Defining and Integrating Personalized, Blended and Competency Education. Vienna, VA: International Association for K-12 Online Learning, 2013. iNACOL International Association for K-12 Online Learning. Web. 2 Feb. 2016.

⁷ Priest, Nona, Antonia Rudenstine, and Ephraim Weisstein. Making Mastery Work: A Close up View of Competency Education. Competency Works. International Association for K-12 Online Learning, n.d. Web. 1 Feb. 2016.

⁸ Hmelo-Silver, Cindy E., Ravit Golan Duncan, and Clark A. Chinn. "Scaffolding and Achievement in Problem-Based and Inquiry Learning: A Response to Kirschner, Sweller, and Clark (2006)." Educational Psychologist 42.2 (2007): 99-107. University of Southern California. Web. 2 Feb. 2016.

⁹ Achieve, and National Center for the Improvement of Educational Assessment. Assessment to Support Competency-Based Pathways. Washington, DC: Achieve, 2015. Achieve.org. Web. 2 Feb. 2016.

¹⁰ Martinez, Margaret. "Key Design Considerations for Personalized Learning on the Web." Journal of Educational Technology & Society 4.1 (2001): n. pag. Journal of Educational Technology & Society. Web. 2 Feb. 2016.

¹¹ Tomlinson, Carol Ann. Differentiated Classroom: Responding to the Needs of All Learners. 2nd ed. Alexandria, VA: ASCD, 2014. Print. ¹² Marzano, Robert J., and Debra J. Pickering. The Highly Engaged Classroom. Bloomington: Marzano Research, 2010. Print.

¹³ Moeller, Aleidine J., Janine M. Theiler, and Chaorong Wu. "Goal Setting and Student Achievement: A Longitudinal Study." Modern Language Journal 96.2 (2012): 153-69. ERIC. Web. 2 Feb. 2016.

¹⁴ Quartz, Steven R., and Terrence J. Sejnowski. "The Neural Basis of Cognitive Development: A Constructivist Manifesto." Behavioral and Brain Sciences 20.4 (1997): 537-56. PubMed. Web. 7 Feb. 2016.

¹⁵ Bray, Barbara, and Kathleen McClaskey. Make Learning Personal: The What, Who, WOW, Where, and Why. Thousand Oaks: Corwin, 2015. Print.

¹⁶ Dweck, Carol S. Mindset: The New Psychology of Success. New York: Random, 2006. Print.

¹⁷ MacLeod, W. B., D. L. Butler, and K. D. Syer. Beyond Achievement Data: Assessing Changes in Metacognition and Strategic Learning. Vancouver: U of British Columbia, 1996. University of British Columbia. Web. 2 Feb. 2016

¹⁸ Deak, JoAnn M., and Dory Adams. How Girls Thrive. Rev. & Expanded ed. N.p.: Green Blanket, 2010. Print.

¹⁹ Marzano Research Laboratory. A Study of Best Practices in PLATO Learning Online Solutions: An Analysis and Interpretation of a Marzano Research Laboratory Study. Bloomington: Plato Learning, 2012. Print.

²⁰ Boyd, Danah. Why Youth Heart Social Network Sites: The Role of Networked Publics. Youth, Identity, and Digital Media. Ed. David Buckingham. Cambridge: MIT, 2008. 119-42. The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. The Berkman Center for Internet & Society at Havard University. Web. 2 Feb. 2016.

²¹ "Partnership for 21st Century Learning." http://www.p21.org/. P21, n.d. Web. 2 Feb. 2016.

²² Wagner, Tony. The Global Achievement Gap: Why Even Our Best Schools Don't Teach the New Survival Skills Our Children Need-and What We Can Do about It. Rev. ed. New York: Basic, 2014. Print.

²³ Campbell, Katy. "Gender and Educational Technologies: Relational Frameworks for Learning Design." Journal of Educational Multimedia and Hypermedia 9.2 (2000): 131-49. EdITLib. Web. 6 Feb. 2016.

²⁴ Lai, Emily R. Collaboration: A Literature Review. N.p.: Pearson, 2011. Pearson. Web. 6 Feb. 2016.

²⁵ Damour, Lisa. Engaging Girls in STEM: A Collaboration. Center for Research on Girls. Laurel School, 2011. Web. 6 Feb. 2016.

²⁶ Goodman, Larry. Girls and Blended Learning. Center for Research on Girls. Laurel School, 2011. Web. 6 Feb. 2016.

²⁷ Zhao, Yong. Catching up or Leading the Way: American Education in the Age of Globalization. Alexandria: ASCD, 2009. Print.

²⁸Jacobs, Heidi Hayes. Curriculum 21: Essential Education for a Changing World. Alexandria: ASCD, 2010. Print.

²⁹ Gardner, Howard. Five Minds for the Future. Boston: Harvard Business School, 2007. Print.

³⁰ Wagner, Tony, and Robert A. Compton. Creating Innovators: The Making of Young People Who Will Change the World. New York: Scribner, 2012. Print.

³¹James, Abigail Norfleet. Teaching the Female Brain: How Girls Learn Math and Science. Thousand Oaks: Corwin, 2009. Print.
³² Muirhead, Brent. "Integrating Creativity into Online University Classes." Journal of Educational Technology and Society 10.1 (2007): 1-

13. Journal of Educational Technology and Society. Web. 6 Feb. 2016.

³³ Christie, Alice A. "How Adolescent Boys and Girls View Today's Computer Culture." Meridian: A Middle School Computer Technologies Journal 8.1 (2005): 1-4. Meridian. Web. 6 Feb. 2016.

³⁴Clemons, Stephanie A. "Encouraging Creativity in Online Courses." International Journal of Instructional Technology and Distance Learning 2.1 (2005): n. pag. International Journal of Instructional Technology and Distance Learning. Web. 6 Feb. 2016.
³⁵ Goodman, Larry, and Lisa Damour. Engaging Girls in STEM: Meaningful Objectives. Center for Research on Girls. Laurel School, 2011. Web. 6 Feb. 2016.



⁵ Bray, Barbara, and Kathleen McClaskey. "Personalize Your Learning Environment." ISTE. International Society for Technology in Education (ISTE), 11 June 2014. Web. 2 Feb. 2016.

³⁶ Pastor, Jennifer, Jennifer McCormick, and Michelle Fine. "Makin' Homes: An Urban Girl Thing." Urban Girls: Resisting Stereotypes, Creating Identities. By Bonnie J. Ross Leadbeater and Niobe Way. New York: New York UP, 1996. 15-34. Print.

³⁷ Johnson-Stempson, Rane. "Addressing the Need for More Women in Computer Science Programs." Microsoft Research Connections Blog. Microsoft, 3 Feb. 2012. Web. 6 Feb. 2016.

 ³⁸ Damour, Lisa. The Truth about Gender Differences. Center for Research on Girls. Laurel School, 2011. Web. 6 Feb. 2016.
³⁹ Eliot, Lise. Pink Brain, Blue Brain: How Small Differences Grow into Troublesome Gaps--and What We Can Do about It. Boston: Mariner, 2010. Print.

⁴⁰ Ashcroft, Catherine, Elizabeth Eger, and Michelle Friend. Girls in IT: The Facts. Boulder: National Center for Women and Information Technology, 2012. National Center for Women and Information Technology. Web. 6 Feb. 2016.

⁴¹ Sax, Linda J. Women Graduates of Single-Sex and Coeducational High Schools: Differences in their Characteristics and the Transition to College. Los Angeles: Udikoff Family Institute for Education & New Media at the UCLA Graduate School of Education & Information Studies, 2009. UCLA. Web. 6 Feb. 2016.

⁴² Office of Planning, Evaluation, and Policy Development Policy and Program Studies Service. U.S. Dept. of Education. Evaluation of Evidence-Based Practices in Online Learning A Meta-Analysis and Review of Online Learning Studies. By Barbara Means et al. Washington, D.C.: U.S. Dept. of Education, 2010. U.S. Department of Education. Web. 6 Feb. 2016.

⁴³ Reichert, Michael, and Richard A. Hawley. Reaching Boys, Teaching Boys: Strategies That Work and Why. San Francisco: Jossey-Bass, 2010. Print.

⁴⁴ International Boys' School Coalition. Teaching Boys at the Coal Face: Mining Key Pedagogical Approaches. N.p.: International Boys' School Coalition, 2012. International Boys' School Coalition. Web. 6 Feb. 2016.

⁴⁵ International Boys' Schools Coalition. "Locating Significance in the Lives of Boys." International Boys' Schools Coalition. International Boys' Schools Coalition, 2011. Web. 6 Feb. 2016.

⁴⁶ Knowles, Malcolm S. Andragogy in Action. San Francisco: Jossey-Bass, 1984. Print.

⁴⁷ Keller, John. Teachers as Life-Long Learners: A Theory for Professional Development. Bloomington: Indiana U, 2002. Indiana University. Web. 6 Feb. 2016.

