Fostering valuable learning experiences by transforming current teaching practices: practical pedagogical approaches from online practitioners

Rebecca Chiyoko Itow
IU High School, Indiana University, Bloomington, Indiana, USA

Abstract
Purpose – The purpose of this paper is to share lessons learned and tools developed that teachers can use to build pedagogically sound online courses. Transitioning to online instruction is not learning to teach all over again, and it does not have to feel that way either. Through the lens of three common questions new online teachers ask, the principal of a university-run online high school offers practical advice for transforming current pedagogical practices into effective online teaching. This transformation is structured with an innovative “multi-level” approach to assessment. This structure helps organize the transformation, letting teachers focus on building and/or maintaining crucial relationships and meaningful learning experiences with their students.

Design/methodology/approach – An innovative assessment lens structures the transformation of practices from brick-and-mortar to online settings, clearing the opacity of the online teaching context so that teachers can return their focus building relationships and meaningful learning experiences with their students.

Findings – The paper offers immediately-implentable strategies for designing online courses that facilitate relationship building, meet curricular goals, and are pedagogically sound.

Practical implications – Teachers can adapt the tools, resources, and advice included in this paper to fit their unique teaching needs as they move to online teaching contexts.

Originality/value – This paper uses the pedagogical model and assessment lens developed by the university-run high school and its principal to offer unique, practically implementable strategies for transitioning from brick-and-mortar to online teaching in this tumultuous time.

Keywords Assessment, Professional development, Online teaching, Online pedagogy, Asynchronous learning, Online course design

Paper type Research paper

This paper and the work that has been presented within it would not be possible without Jody Duncan, Christine Hitchcock, and Courtney Gaylord, whose passion for online teaching and dedication to improving students’ lives is an inspiration every day. Mike Beam has provided invaluable leadership and support in positioning IU High School as a leader in online education. Dan Hickey’s mentorship and guidance catalyzed this work and continues to help it thrive. The IU High School staff have contributed valuable insights to the development of the tools presented here. Joshua Quick aided in the preparation of this manuscript and has been an excellent thinking partner. This work is inspired by and conducted for all of my students: past, present, and future. Without them, these efforts would be for naught.

This article is part of the special issue, “A Response to Emergency Transitions to Remote Online Education in K-12 and Higher Education” which contains shorter, rapid-turnaround invited works, not subject to double blind peer review. The issue was called, managed and produced on short timeline in Summer 2020 towards pragmatic instructional application in the Fall 2020 semester.
I encourage pre-service teachers to consider the unique elements of their teaching context before and as they make curricular decisions. And while this seems obvious in traditional classrooms, many teachers are stymied at how to offer valuable, humanized learning experiences for their students in an online education context. In the wake of the COVID-19 pandemic, it became painfully clear that online learning contexts are quite different from the brick-and-mortar settings to which we have become accustomed. And as a new context, teaching within it requires new pedagogical approaches and strategies for facilitating meaningful, useful, and valuable learning experiences for both students and teachers.

Pedagogical tools, management strategies, and curricular designs certainly help teachers transform conventional curricula for online learning spaces. However, using them does not require learning to teach all over again. In fact, it must not mean learning to teach all over again. Teachers can and must rely on past experiences and professional expertise to reconceptualize what learning might "look like" in an online class context. Given that many US students have relatively limited Internet access, this vision does not include "synchronous" videoconferences.

In the following pages, I share lessons learned from leading a university-run online high school. I draw on six years of design based implementation research (Penuel et al., 2011) on teacher professional development and curricular design in online contexts (Itow, 2018), practical experience of teaching online courses, and being principal of an online high school. My research and experience draw from a decade of design-based research of online learning and assessment (Hickey et al., this issue; Hickey et al., 2020a, 2020b; Hickey and Rehak, 2013). A vignette in each section illustrates online pedagogy in practice.

Learn how to teach online, teach how to learn online
Often, students and teachers alike expect online learning to be quick, easy, and relatively shallow. These expectations are pervasive, and they were formed with good reason; many online courses have not been robust because truly meaningful online learning experiences are difficult to develop. Building courses so compelling that a high school sophomore would rather finish that English essay than play a game once their family leaves for work is no small task. Doing so in a way that avoids the laborious work of constant check-ins and giving individualized feedback (that might not be read and probably will not be used) is an even higher mountain to climb. However, it is possible and it does not have to be exhausting for teachers or students.

Isn’t learning online too easy? Understanding realities and possibilities in online education
When I became Principal of IU High School, people asked, “how does that work?” and “do the kids learn anything?” Students and families have the same questions and hold the low expectations of rigor in online learning that such questions generate. As in any other learning context, before we can teach online we need to understand what the online context offers and what it takes away. An added challenge in digital contexts is that we must also teach how to learn online; just as most teachers’ training has embedded expectations of what that learning looks and feels like in brick-and-mortar settings, so too have students been trained to expect certain class procedures and structures.

Assumptions of easiness in online courses can distract teachers from utilizing their pedagogical understandings in digital contexts; in fact, online learning can be quite difficult as the learner must be able to manage and organize their time and workflow independently. Without a bell schedule and teacher directing learners’ interactions with content, the students may feel they have too much freedom. Teachers in online learning contexts must consider how to structure students’ access to, engagement with, and use of content in ways that help students become agentic learners who try on ideas and push on the boundaries of their understandings.
Rather than focus on easiness or seat time, teachers should consider how we engage students in meaningful learning experiences without relying on the place-based and time-bound routines that organized our classrooms. In brick-and-mortar classrooms, we begin class with an activity that focuses students on the concepts being covered today. We then begin breaking down those concepts. The same is true for online learning, and we can draw on Randi Engle’s structures for Productive Disciplinary Engagement (PDE; Engle, 2012; Engle and Conant, 2002) and expansive framing (Engle et al., 2012) to guide this in online courses. Each unit or module in an online course – and each lesson within it – must engage students in activities that allow them to problematize the issues at hand, first from an expert framing, and then using expansive framing (Hickey et al., this issue). Begin by offering students multiple opportunities to explore the concept(s) at various levels of specificity and do so through multiple modes. Attend to accessibility, not only because the law says we must, but because it is good for learning. As in a brick-and-mortar classroom, make sure that course lessons offer access to the content through more vehicles than the written word. Use video, sound, art, and students’ interests to contextualize learning.

Start by framing concepts from experts’ (not necessarily the teacher or the textbook) points of view and invite students to process, summarize, question, and push back on expert assertions in similarly varied modes. Then highlight the role students’ consumption of information plays in their co-creation of knowledge (Xenos and Foot, 2007); this kind of authorship positions students as agents of their own learning, and such sharing of power in a course can benefit all members of the learning community. It helps students begin to apply new understandings to personally relevant contexts. When teachers successfully position students as authors, it relieves both teachers and students of the laborious work of “expert-consumer” approaches to online education. Moreover, by designing courses that encourage students to problematize nuanced concepts in personally relevant ways, teachers can focus on students’ needs and course goals instead of designing “busy work” to fulfill seat time requirements and generate passing scores on surface-level quizzes.

**Pedagogy-in-context**

In her online biology courses, Jody opens with textbook readings, learning objectives, and a list of the main ideas that will be covered. This simple presentation forecasts that students will ground conversations in expert-generated readings and focus their synthesis of those readings on course goals. The students are immediately asked to explore how the lesson’s main ideas and objectives relate to their previous experiences, current interests, and future goals by answering three reflection questions. In Jody’s courses, students contextualize concepts lesson by lesson, finding specific relevance of concepts each time they engage with the content. Unlike other online courses that ask students to choose a single context that frames their learning and builds toward a final capstone project, Jody’s courses ask students to continually reflect on their understandings and view peers’ work for examples and inspiration. This reflective contextualization activity immediately repositions the student from information-consumer to learner-agent as they problematize concepts in relation to their own interests. One task asks individual students to explore three resources (video, OER, and textbook section), “rank” them in order of most-to-least-relevant, and justify those rankings in complete sentences. This activity helps students articulate the extent to which each resource impacted their conceptual understandings. This is a difficult activity that spotlights to both the student and the teacher places of strength and struggle around the concepts presented. Students post these reflections and rankings to a public (to the class) “wikifolio” (Hickey and Rehak, 2013). This persistently public exploration of concepts offers opportunities to review examples, model work, and be held accountable for the work they produce.
Learning to build community, building community to learn
Pedagogical choices shape asynchronous relationship-building, communication, and information literacy skills in digital contexts. Teachers must rethink traditional notions of community building, and open communication lines to acknowledge the human on the other side of the screen. To do so, teachers need to build and maintain relationships with students. While online learning often does not afford the opportunity to rely constantly on visual cues to assess a student’s well-being and academic progress easily, it does afford many ways to efficiently check in with students in ways that would be overly laborious in a brick-and-mortar setting.

How do I get to know my students? Building relationships & establishing trust at a distance
Feedback is key and giving it does not have to take hours and hours. By positioning students as agents of their own learning from outset, students then have the opportunity to demonstrate authority (Engle, 2012; Engle and Conant, 2002) while exploring concepts. Such demonstrations of authority can take place in:

- informal peer discussions;
- reflections on expert- and novice-generated artifacts;
- social annotations of resources; and
- responses to and application of individualized feedback.

This latter mode of demonstrating authority is particularly difficult in a brick-and-mortar setting, as offering detailed formative feedback takes time, engaging in feedback conversations is laborious, and this practice often prompts students to demand overly specific feedback by looking for “what the teacher wants” rather than how to use the concepts in relevant contexts (Hickey et al., 2011).

Teachers can leverage digital tools to position students as authorities by asking them to engage with one another directly on the artifacts students create. For example, teachers can invite students to practice giving and receiving critical feedback on Google Docs within gPortfolios (see Hickey et al., this issue). Through commenting, students access new perspectives, practice interacting with others critically and respectfully, and adjust their thinking on artifacts. On these public (to the class) artifacts, teachers can also leave the kind of feedback we write repeatedly on paper and point the class to specific examples of how the feedback is relevant and useful. This “persistently public feedback” (Hickey and Rehak, 2013) relieves the burden of making repeated corrections across multiple papers and contextualizes feedback while celebrating student work. Importantly, this kind of feedback system also gives teachers insights into how students’ thinking is developing, allowing the teacher to focus individualized, private gradebook feedback on specific issues as students develop their understandings and are ready to move forward.

Taking advantage of the digital space even further, teachers can shift assignment expectations from completion of work to application of feedback. LMS gradebook feedback is often simple to expand and collapse, allowing the student and teacher to review feedback given on individual assignments. It is then much easier for both parties to review previous feedback and engage in formative feedback conversations (Anderson et al., 2007). This can help teachers encourage students to apply feedback to subsequent assignments and refer to that feedback throughout the course.

Pedagogy-in-context
Courtney’s online English course is completely asynchronous, yet all students comment on and learn from one another’s work. Using a social annotation tool called Perusall, students learn to give and receive critical feedback as they analyze texts. As the teacher, Courtney can monitor and manage comments, pose questions, identify misconceptions, and celebrate
insights. In this way, students learn to discuss thoughtfully, disagree gracefully, and extend understandings collaboratively. As they learn to interact communally, they practice skills necessary for working in a networked world. Their annotations also become a communal resource on which they can draw, and each contribution adds value to those who participate next.

**Everything is an assessment**

Rather than reformat traditional classwork, teachers must reconceptualize what learning “looks like” in each domain as we design online (Beetham and Sharpe, 2019). Teachers also need to think differently about assessment. A new pedagogical model for teaching and learning online uses an innovative assessment lens (based on Ruiz-Primo et al., 2002; and Hickey and Zuiker, 2012) to categorize every course activity as an assessment, no matter how small or seemingly inconsequential.

*How do I know my students are learning? Reconceptualizing participation, content & assessment*

In online learning environments, every time students interact with content, feedback, teachers, and peers, a record is generated of that activity. Many of those records can be used as evidence of engagement and learning. Even more so than in classrooms, online activities must have a clearly articulated purpose for moving the student forward in the course; the way assignments are assigned points reveals what is valued in the course. For instance, if a course places high point values on textbook work, the student can surmise that the course goals are to relay information and practice skills as explained by the experts who wrote the resources. If, instead, a course places high point values on application of content to relevant contexts, the student can surmise that the course goals are to author connections between course content and their personal lives. Moreover, if a course places high point values on practicing domain skills by trying on and justifying new ideas (i.e. demonstrating authority and being held accountable; Engle, 2012; Engle and Conant, 2002) – in essence, “doing” the work as experts do rather than reporting on it – students can surmise that the course goals are to do history as historians or to do math as mathematicians; the course goals encourage students to begin engaging in specific domain practices as developing experts in the field and apply understandings and skills in new contexts.

The best online courses engage students in activities that achieve all three of these goals: developing discreet domain competencies, engaging in specific domain practices, and applying domain understandings in relevant contexts (Figure 1). To do so, teachers can use the Balancing Assessment Matrix (Figure 2) to organize existing course activities, evaluate the priorities that organization reveals about the course goals, and then adjust the value of those activities as needed to rebalance student engagement and course structure. Activities should fall on the diagonal, with more closely curricular focused activities holding less value and receiving fewer points and those more distal activities holding more value and receiving more points. Certainly, some activities may fall outside of the diagonal, but an essay summarizing the major points in the opening chapters of a novel should not fall in the lower left corner of the matrix. If it does, this is a good indication that either the essay focus should be revised to help students apply concepts in the novel so the essay moves to the Formal (unproctored) box under Proximal or Distal, or the activity should be less intensive and receive minimal points as a close-reading assessment and move to the first box under the Close level. The Balancing Assessment Matrix categorizes activities by their closeness to curricular content (e.g. the extent to which a student is asked to use the concepts being learned in increasingly distal contexts), and by the formality of the activity (e.g. points awarded; Hickey et al., 2006). Organizing online course activities in the Matrix offers a visual
representation of how assessment choices place value on activities, allowing teachers to sharpen the focus of course goals and align activities to those goals appropriately.

*Pedagogy-in-context*

Chris’ world history online courses require students to reference historical texts and draw connections to current events. Every activity in Chris’ course is an assessment, and the level of feedback she provides matches the formality and curricular closeness of the task. Students contextualize their learning with a single lens through which they consider
historical events in original and modern contexts simultaneously. In their application of historical concepts to current contexts, Chris can assess a student’s grasp of and ability to draw connections between events at a glance. Chris can then provide individualized feedback that is focused on a student’s ability to apply historical lessons to modern contexts rather than on whether a student has memorized particular details about that event. Using a variety of strategies including visual symbols, emojis, voice recordings, and screencasts, Chris tailors her feedback to an individual student’s needs and invites students to respond to her comments. All of her feedback lives in the LMS gradebook, which provides an opportunity for the student and the teacher to review, reference, and build upon that feedback. Unlike paper feedback, no one needs to go searching for a comment; all of the feedback is visible and accessible, allowing the student to be held – and to hold themselves – accountable in their own learning processes. Importantly, Chris’ feedback conversation strategies help her get to know and interact with her students as individual humans; in this way she can build and maintain a relationship with each student without requiring synchronous conversations or making heavy demands on the bandwidth in students’ homes.

Positioning students as agents of learning through course design
After organizing course activities and sharpening course goals, teachers can begin to fill out their course designs. The structure of an online course impacts the kind of engagement that is elicited from students. The nature of an online course requires that teachers think carefully about their course goals, and build every element thoughtfully to achieve those goals. This became salient in a case study following students who participated in a 10th grade English course structured with the principles and templates discussed in this paper and an 11th grade English course with a correspondence-style online structure. While taking the 10th grade course, students recognized literary themes in completely distal contexts; one student even engaged in a public discussion with actors about the resemblance of two television characters’ relationship to that of characters in a novel read in the course. When these same students completed the correspondence-style 11th grade online course their application of concepts in new contexts diminished, and compositions contained only surface-level analyses of novels with little elaboration or extension of the ideas presented in the texts (Quick and Itow, in press).

The structure used to design, implement, and refine the 10th grade English course positioned students as agents of their own learning. Students had to problematize concepts from expert and expansive frames and act as domain authorities by questioning expert-generated resources and asserting their own claims. While the course held the students accountable for their claims, it also provided them the support and resources necessary to accomplish this highly productive disciplinary engagement (PDE). To help teachers design their own courses, an Online Course Development Template is provided (Table 1). This is a structure for organizing course units and lessons that focuses activities on the three types of online course goals discussed above, while promoting PDE and balancing the assessment choices in the course. Please note that this Template should be used as a guide, not as a prescription. Consider that, just as the online context broadly necessitates a unique pedagogical approach, each teacher’s online course context will have its own nuances and needs. Adapt the advice, tools, and resources provided in this article as appropriate. There are no “best” practices, only those that are appropriate for your unique teaching context.
<table>
<thead>
<tr>
<th>Proximity</th>
<th>PDE</th>
<th>Domain specificity</th>
<th>Learner practices</th>
<th>Task (adjust suggested tasks to meet curricular goals and student needs)</th>
<th>Assessment formality (value/points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate</td>
<td>Problematize: expert framing</td>
<td>Discreet domain competencies</td>
<td>Clearly communicate what we (don’t) know and how we know what we know</td>
<td>Engage with expertly-framed resources (e.g., a reading)</td>
<td>Informal</td>
</tr>
<tr>
<td>Close</td>
<td>Problematize: expansive framing</td>
<td>Discreet domain competencies</td>
<td>Articulate what skills we possess and how to apply them in relevant ways</td>
<td>Identify problem in own words, key terms</td>
<td>Informal</td>
</tr>
<tr>
<td>Proximal</td>
<td>Demonstrate authority</td>
<td>Specific domain practices</td>
<td>Develop and hone research strategies. Understand the historical, present, and future impact of content learned</td>
<td>Describe how to address problem in own context</td>
<td>Semi-Formal</td>
</tr>
<tr>
<td>Proximal</td>
<td>Demonstrate accountability</td>
<td>Specific domain practices</td>
<td>Justify arguments and beliefs with relevant, reliable, and reasonable evidence</td>
<td>Apply to artifact; discuss and defend choices</td>
<td>Semi-Formal</td>
</tr>
<tr>
<td>Distal</td>
<td>Identify, access, and apply resources</td>
<td>Application</td>
<td>Build and sharpen information literacy skills. Utilize Internet, technological, and media tools to maximum capacity</td>
<td>Contribute to collaboratively curated resource; Rank resources by applicability</td>
<td>Formal</td>
</tr>
<tr>
<td>Distal</td>
<td>Reflection</td>
<td>Application and extension</td>
<td>Recognize academic import and practical application of course content</td>
<td>Reflect on learning Complete capstone project</td>
<td>Formal</td>
</tr>
</tbody>
</table>

Table 1. Online course development template
Pedagogy-in-context

The pedagogical approaches and strategies illustrated in the three vignettes above position students as agents of their own learning; these are bolstered by course design choices that scaffold students' experiences as they reposition themselves from consumer of information to co-producer of knowledge. Jody’s courses invite students to draw cross-curricular connections to biology concepts through activities like poetry analysis, and push students to apply concepts embedded in curricular content to other contexts. Courtney has eliminated the “infinite scroll” in her courses to help direct her students’ focus toward action items rather than get lost in the text-heavy pages that often result from attempts to replicate face-to-face instruction online; by keeping each page concise, Courtney delivers instruction clearly without compromising the pedagogical soundness of the activities. Chris uses a variety of icons, emojis, videos and other visual and audio cues to draw students’ attention toward areas for improvement. For instance, when students see a hammer icon and a screencast link in their feedback, they can quickly:

- recognize what needs fixing;
- watch their teacher explain issues that arose; and
- engage in specific actionable feedback conversations that help them use feedback on subsequent lessons.

A final word

Learning to teach online is not learning to teach all over again. As we design online courses and even hybridize face-to-face settings, remember that you possess a wealth of knowledge, experience, and expertise that will guide you in developing robust, pedagogically sound learning environments that facilitate meaningful learning for both students and teachers. Use that experience. Rely on that expertise. Reach out to other educators and ask for help. Above all, talk to your students and keep cultivating those relationships.

Every teacher, administrator, and educational stakeholder would do well to remember our goal as educators: to do what is best for children. These are unprecedented times and shifting teaching contexts is overwhelming and scary. This is true for the students as well. In the end, content always wins; the purpose of our courses is to help students build the skills they need to think critically and interact responsibly in a networked world. The goal of schooling is to help our students become responsible, kind, contributing citizens of the world. Focus on building learning experiences that cultivate the growth of humans, and we will be just fine. The COVID-19 pandemic has pushed many conversations to the surface that we have needed to have for a long time. We are having them now, and that is good progress.

References


Itow, R.C. (2018), Professional Development is Not a Summer Job: Designing for Teacher Learning That is Valuable and Valued, IN University, Bloomington, IN.


Corresponding author
Rebecca Chiyoko Itow can be contacted at: rcitow@indiana.edu

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com