

From Nature to Pen: Designing an Inclusive Writing Course for Educators

Beth Rajan Sockman, Laura Kieselbach, Robin Danning, Devin Heffernan, Jessica T. Hill, Jamilyn Husted, & Caitlin Sullivan

DOI:10.59668/722.13028

- Equity
- Instructional Design
- Social Justice
- Wellness
- Culture
- Diversity Equity and Inclusion
- DEI
- Authentic Writing
- Designing for Equity

This design case highlights a collaborative effort among teachers, professors, park rangers, and local mindfulness instructors. Together, they developed a virtual course aimed at promoting wellness through nature and reflective writing, while emphasizing diversity. The team utilized instructional design processes and levels of culture to create an inclusive asynchronous course for educators. They faced challenges regarding the design team composition and the influence of popular culture, which hindered inclusivity. Recommendations include diversifying the design team, incorporating a diversity, equity, and inclusion audit, and allowing intentional planning time. These steps aim to enhance inclusivity and cater to diverse populations in instructional design endeavors.

Understanding the Larger System and Culture

The United States National Parks System (NPS) and schools have coinciding missions for the betterment of society. National Parks aspire to be available to everyone in the nation. Part of their mission states, “The National Park Service preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations” (NPS, 2023). Every school has its own mission, but most outwardly aspire to educate all students for student success (Spring, 2018). Both institutions envision making a positive societal impact, yet both have been plagued with histories of exclusion of races and cultures (DeGoff, 2023; Finnley, 2014; Love, 2019; Hooks, 1994; Moore, 2022; Spring, 2018) which hampers actualization of that vision.

Both entities, NPS and schools, exist within the dominant culture, the larger culture or the supra-system (Netting et.al, 2017) that established them and overshadows all that operates within it (Bathany, 1992; Sockman & Kieselbach, 2022.) When the USA designed schools (hooks, 1994; Love, 2019; Spring, 2018), and its National Parks system (Finnley, 2014; Moore, 2022), they served the White privileged of the supra-system, and did not serve and under-served Black, Indigenous and other People of Color (BIPOC) (Gay, 2018; Love, 2019; Zivot, 2010). Both purposefully minimized or disregarded BIPOC people’s value through explicit policies (DeGoff, 2023; Kendi 2019; Moore, 2022; Wilkerson, 2020) or implicit practice (Love, 2019; Safir & Dugan, 2021; Weber & Sultana, 2012). The supra-system influences all organizations embedded within, and then, individual behavior (Harro, 2018; Sockman & Kieselbach, 2022; Stroh, 2015) that manifests within the environments.

National Parks (NPSCSI, 2011) and schools (Best Practices Clearinghouse, 2023) have been purposefully examining and implementing strategies to change the dominant system influence in their institutions. State and local municipalities control schools, and so, schools vary widely in vision, policy, and practices (Spring, 2018; Starnes & Sockman, 2021). The NPS has strategically worked to welcome all people by researching and creating messaging materials to reach indigenous communities (DeGoff, 2023; NPS, 2013; NPSCSI, 2011; Zivot, 2010) so that all have access to the benefits of being in nature (Gupta, 2021; Keltner,

2023). The shift to welcome access leans into social justice, when entities intentionally disrupt the status quo and aim to welcome all people, especially those that have been historically marginalized (Adams & Zuniga, 2018).

The concept of social justice is both a goal and a process, according to Bell (2018). Social justice as a goal is the “full and equitable participation of people from all social identity groups in a society that is mutually shaped to meet their needs” (p.34). Likewise, the process of doing social justice gives voice to the different perspectives that are brought together from the identity groups. Bell describes further: “distribution of resources is equitably and ecologically sustainable, and all members are physically and psychologically safe and secure, recognized, and treated with respect” (Bell, 2018, pg. 34). The vision for social justice applies to schools and the NPS.

One piece of social justice encompasses respect, which includes being cognizant of and honoring cultural differences with humility (Harro, 2018; Nomikoudis & Starr, 2016). Culture “refers to a dynamic system of social values, cognitive codes, behavioral standards, worldviews, and beliefs used to give order and meaning to our own lives as well as the lives of others” (Delgado-Gaitain & Trueba, 1991 in Gay, 2018). There are many levels to culture (Hammond, 2015) which will be addressed in the method section. Dominant super systems dominate culture which is then practiced in the individual that lives within the system. From an instructional designer’s perspective, the dominant system - the supra-system of cultural norms influences how instruction is designed by individuals or groups of individuals.

When designers shift their practice to be more inclusive of cultures different from the dominant system, they may have a disposition of cultural humility (Hook, 2013). Hook (2013) describes cultural humility as the “ability to maintain an interpersonal stance that is other-oriented (or open to the other) in relation to aspects of cultural identity that are most important to the [person]” (p.2). Instructional designers have the opportunity to work toward social justice by being inclusive of the cultures that are often left out by moving beyond reflecting the dominant culture.

When designing with culture in mind, creators can be intentional through the instructional design process (Sockman & Kieselbach, 2022). The remainder of the article will move through a particular case that describes how a design team created and implemented a writing course for teachers inspired by nature, aimed to be inclusive of all people with an intentional awareness of those that have been marginalized. First, the context and partners will be explained. Second, the method will be described with the instructional design processes and with the depths of culture (Hammond, 2015) as a framework. Then, the salient experiences through the instructional design process and levels of culture will be described. Lastly, the article will discuss the findings in terms of the learning goals and design process. Overall, this article will wind together systems thinking and instructional design embedded in culture.

Context: Three Partner Groups Design

A National Writing Project grant supported the Pocono Writing Project (PWP) to partner with the National Park - Delaware Water Gap Recreational Area (DEWA) to create writing experiences for teachers that utilized the outdoors. The PWP design team of teachers, professors, and DEWA rangers co-designed a virtual course for educators to encourage wellness through nature, and a reflective writing experience for authentic learning (Hammond, 2015; Wiggins & McTighe, 2005). Through the process, we hoped that students, who are classroom teachers, would gain skills that they could transfer to their students through the writing process and appreciation of nature, specifically at DEWA. The design team used the instructional design process to create online modules with experiential learning and process writing that honors the cultural perspective of all participants through mindful awareness of our local ecosystem.

Principles of learning grounded in well-being and science supplied the foundation for the project. The principles are as follows: our local natural ecosystem is a treasure that is underutilized; spending time in nature is good for the well-being of all humans; living things are interconnected; having a better understanding of the science influences our decisions that impact the future of our environment; understanding is heightened with experiential learning through reflection; process writing and digital writing can honor the voice of individuals; each person comes to experience with their own cultural perspective that serves as a frame for the individual’s understanding; through sharing experience both face-to-face and digitally, our varied experience can make a greater impact; teachers need to be empowered so that they can empower their students; and humans learn best through community of sharing and refining.

Much of this article is written in first person since the authors took part in the design. We collaborated on the processes of needs analysis, design, development, implementation, and evaluation. The work was facilitated by DEWA park rangers. The design of the Teacher Writing Naturally course took place from 2020-2021 and pilot implementation was 2021-2022.

Method - Design Case of Teachers Writing Naturally Course

In the methods section, we introduce a design case (Svihla & Boling, 2020) that details the development process of a seven-module course. This process involved following the established steps of traditional instructional design (Dick et al., 2014). By providing episodic descriptions and lessons, we aim to contribute to the knowledge base for future designs, enabling us to build upon this foundation.

The designers included one person trained in instructional design practices and teachers trained through teacher education in lesson planning. While working through the process, we were cognizant of the cultural depths (Sockman & Kieselbach, 2022) and sought to honor each. The depth levels have been parsed into surface, shallow, and deep levels of culture to describe the complexity (Hammond, 2015) embedded in the societal systems (Harro, 2018).

Each cultural depth level (surface, shallow, and deep) is addressed in the front-end analysis, design and development, implementation, and evaluation. In summary, surface culture includes “observable and concrete elements, what we see, generally acknowledged” (Hammond, 2015 p.22); shallow culture overtly expresses “unspoken rules around everyday social interactions & norms” (Hammond, 2015 p.23); deep culture questions “unconscious assumptions that govern the worldview view of good or bad that guides ethics, spirituality, health, and theories of group harmony” (Hammond, 2015 p. 24). See Table 1 for alignment between Cultural Depth Levels and Instructional Design Considerations.

We used the Cultural Depth Levels of surface, shallow, and deep culture, and applied them to each part of the instructional design process. Depending on the instructional model used the process stages can slightly differ but often include variations on front-end analysis, design and development, implementation, and evaluation (Branch & Kopcha, 2014; Woodley, 2017). Through each step of the process, we analyzed the successes, challenges, and opportunities for growth through the cultural depth levels.

Table 1

Levels of Culture with Instructional Design Considerations

Cultural Depth Levels	Examples	Instructional Design Questions for Consideration
Surface	Observable and concrete elements, what we see, generally acknowledged	<ul style="list-style-type: none"> Media: Do images represent various cultures, ethnicity, and race in equal status through position, dress, and intellect in outdoor settings, images, and mindfulness in respectful ways? Course Navigation: Does the participants' movement through the course seem seamless for their participation? Greetings: Do opening messages welcome diverse perspectives when looking at nature and the writing perspectives? Calendar: Does the course calendar represent the dominant or privileged culture or all cultures?

Cultural Depth Levels	Examples	Instructional Design Questions for Consideration
Shallow	Unspoken rules around everyday social interactions & norms, non-verbal	<ul style="list-style-type: none"> • Social Interactions <ul style="list-style-type: none"> ◦ What does communication look like for identities in different learning spaces on the discussion boards and assignments? ◦ What does communication with instructors of the course look like in an asynchronous course about nature and writing naturally? • Course Norms of time, sequence, and effort <ul style="list-style-type: none"> ◦ How are assignment due dates viewed? ◦ What process is expected when writing and being in nature and how is that expectation conveyed? ◦ How much time and effort are learners expected to give assignments of mindfulness, spending time outdoors, and reflecting?
Deep	Unconscious assumptions that govern the worldview, view of good or bad that guides ethics, spirituality, health, and theories of group harmony	<p>Success: What does success look like from the perspective of the learner and of the professor and why? Ethics</p> <ul style="list-style-type: none"> • What are the ethical embodiments of communication (i.e., netiquette, speech)? • What are the expectations and enactments of Copyright, Creative Commons, and Plagiarism? <p>Group Harmony – Individualistic or Collectivist</p> <ul style="list-style-type: none"> • How are learners expected to generate thought in groups or individually and how do learners perceive the difference? • Is the course collaborative and/or competitive in its orientation? <p>Exemplars</p> <ul style="list-style-type: none"> • What is “good” and “exemplars”? Do they represent a diversity of perspectives with various cultures in equal positions? <p>Aesthetics</p> <ul style="list-style-type: none"> • Is the course aesthetically pleasing for the content in its layout and design, to the beholder? • What is the basis for aesthetic preference that governs acceptable qualities?

Note: The basis of the table which designates the “Levels of Culture” from Hammond, 2015 p.22-24, combines with Instructional Design Considerations found in Sockman & Kieselbach, 2022. The Instructional Design Questions for Consideration correspond to the design case in this article.

Salient Experiences through the Instructional Design Process

The findings describe a summary of the way surface, shallow, and deep cultures were used in each stage of the instructional design process with explanations and data to support results. Data was gathered from our personal experience, course participants, and evaluators.

Front-End Analysis

At the beginning of any project, one needs to select the project design group. Our representation was made up of all partners: two DEWA rangers, two university professors, and four teachers. Ideally, the design group would have been composed of different genders, cultures, and races. All of the design team identified as women. One identified as a professor who is also a woman of color, and the others, as white. We reached out to a man, and some educators of color, but none were able to participate.

We desired the module to be completed in a rejuvenating way. Our audience or learners for this course were K-12 teachers in Northeast Pennsylvania (PA) schools. They were experiencing substantial stress during the Covid pandemic (Ferdig & Pytash, 2021), and spending time in nature is scientifically shown to de-stress many humans (Gupta, 2021; Keltner, 2023). We are located near the DEWA area and Pocono Region which supplies opportunities to enjoy the outdoors.

Learner Goals for the Course:

- Learners will experience nature mindfully through their senses and movement.
- Learners will write about their experiences naturally to include reflective writing and shared responses.
- Learners will gain an appreciation of the diversity that nature offers.
- Learners' well-being will be enhanced through their time outdoors, mindfulness, movement, and reflective writing.

Surface Cultural Level in the Front-End Analysis

As the design group, we desired diverse representation in the media chosen for the modules, so we continued to seek representation in the videos and images being used. In terms of the calendar, the course did not have rigid due dates, but the calendar was driven by nature. We wanted participants to enjoy the outdoors, and often people spend time outdoors during their preferred temperature and precipitation levels so we assumed that the rhythms of nature would influence the outdoor intention. The course was limited to K-12 teachers with technology access to Canvas, which would allow presentation of materials and interactions with discussions.

Shallow Cultural Level in the Front-End Analysis

An asynchronous format was determined since teachers were inundated with synchronous Zoom meetings during Covid (Ferdig & Pytash, 2021). Videos would be provided for most of the instructional interaction and assignments would be individually submitted with flexible due dates catering to the teacher's time constraints. A National Writing Project consultant would be dedicated to prompt feedback on the discussion board.

Deep Cultural Level in the Front-End Analysis

We aimed to have educators embrace writing, nature, and self-care with reflection. We wrestled with the questions of what does "authentic writing" look like? What is needed? In the current state, the school system in PA focuses on formulaic writing to meet the state testing requirements, however, researchers note that a sole focus on formulaic writing, based on prescriptive teaching methods, often squelches student motivation, lacks real-world application, and discourages transfer of knowledge (Hammond, 2015; Wargo, 2020).

Formulaic prescriptive methods often do not value learner experience, creativity, and authenticity (Kixmiller, 2004; Roger & Horn, 2000), especially when contrasted with authentic writing processes which become empowering for the learner when embedded within organic and meaningful experience (Behizadeh, 2014; Wargo, 2020). We wanted teachers to experience authentic writing so they in turn could empower their students with similar methods (Roger & Horn, 2000). In the instructional course, we designed reflective experiences so that participants would feel accepted in how they entered and support growth through their interpretations (Behizadeh, 2014; Love, 2019).

Design & Development

The design and development processes were closely intertwined, occurring concurrently, and involving iterative exchanges between the two. The following descriptions outline the progression, starting from the selection of media (surface cultural level) and extending to the interpretation of participant success within the course (deep cultural level).

Surface Cultural Level in Design and Development

As mentioned in the front-end analysis, the intention was to find media representative of diversity. We needed Creative Commons or Public Domain images of diverse ethnicities interacting in the woods or nature— specifically people that represented an array of skin tones, in a temperate forest biome, dressed in clothes that were common in the outdoor culture of northeast PA. This was more difficult than anticipated.

Many Creative Commons or public domain searches yielded images representing people of White identities when using popular search terms such as hiking or hiking in temperate forests. Even the person of color, whose web search algorithm should have been broader due to her personal search, found images of people of color in school uniforms or from tropical nations. To have more representation, we asked friends' permission to use their personal photos and found images that did not show people at all.

Each module had a quote at the top that pertained to the overall lesson. The person responsible for the quotes was given explicit directions to quote diverse voices, but when analyzed by other designers, all seven quotes were from people that identified as White males.

The quotes were considered literary and nature-focused but did not meet the course's diversity goal. One of the designers, a person of color, found some quotes by women who were female in a book that she was reading, written by a Black woman. The same designer, went online to search specifically for other outdoor advocates that were Black, using search terms such as "nature quotes by "Black people" or "people of color." The designer found a quote by Rue Mapp who is a writer and established Outdoor Afro, Inc. (see Figure 1).

Figure 1

Module "What We See"



Note. This figure shows a sample landing page of an instructional module with a quote from Rue Mapp, Outdoor Afro, Inc. Rue's quote inspires equality in nature: "The trees don't know what color I am. The birds don't know what gender is. The flowers don't know how much money I have in my bank account. I think we can rely on nature to be the equalizer for us so we can shed that weight."

Areas of accessibility were addressed. Icon images were designed and developed to represent each of the five senses and interconnectedness, with color contrast and icons that could be recognized even if a person had common forms of color blindness. To approach differently abled pathways, the course embraced movement in the outdoors. Hikes were described in terms of the difficulty level into “Easy”, “Medium Difficulty – short”, and “Medium Difficulty- long”. This would allow learners to enter the park at unique experience levels. The linked map designed trails that were handicapped accessible with a wheelchair.

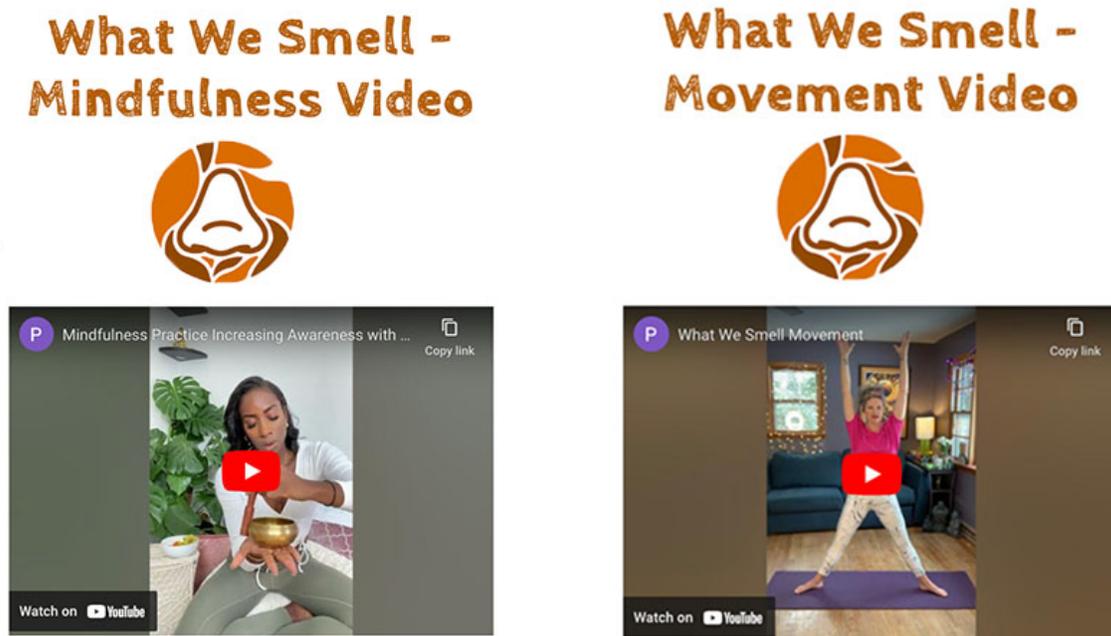
Shallow Cultural Level in Design and Development

In the design and development of communication, we constructed an asynchronous modality course. The rules of engagement were related to communication that could happen within the learner’s time and space. Learners were given a two-month period with suggested completion guidelines of 1-2 weeks per module.

Communication from the instructors would be in three different formats: 1.) Audio-podcast 2.) Video 3.) Written replies with no synchronous interaction. The videos and podcasts would incorporate movement, mindfulness, and writing in each module allowing participants to experience learning in different representations (see Figure 2). All audio had scripts available and all videos used YouTube with Closed Captioning. We wanted to honor each person’s journey so individual reflection was encouraged. Participants would mostly respond in writing, which could be a limitation, but the goal of the course was to encourage writing.

Figure 2

Module “What We Smell”: Two Videos Visually Representing Two Races



Note. This figure provides an example of utilizing shallow level culture in course development.

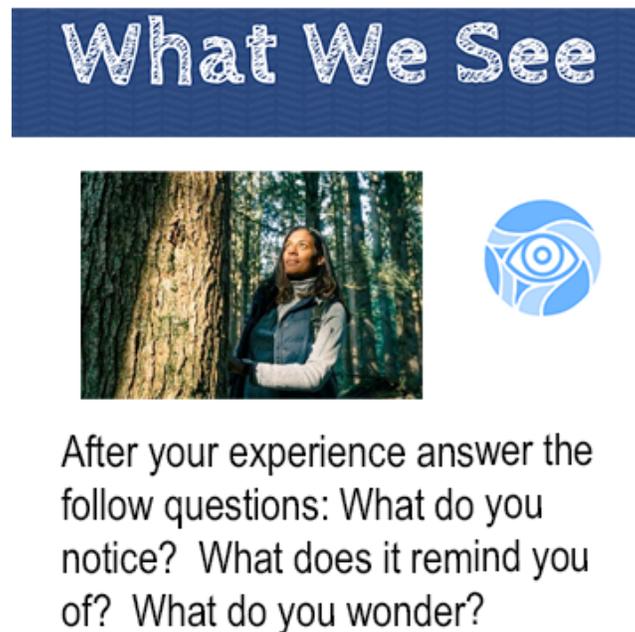
The audio and video needed to have voices and actors that represented a diversity of genders and cultures. Members of the design team quickly thought of females to help, but we intentionally sought voice representation of males, accents, and different high/deep tones. The videos about nature were created by DEWA who were limited to their personnel and were careful to use both male and female rangers. We had similar issues as our image references in offering diverse video content.

Deep Cultural Level in Design and Development

The course was for personal professional development and not linked to college credit, which resulted in more flexibility of success. Success would be determined by a participant's authentic experience with the modules that aligned with the goals of the course. The writing prompts encouraged the participants to enter their development in writing, mindfulness, or movement (see Figure 3).

Figure 3

Module "What We See" Journal Prompt



Note. This figure demonstrates a journal prompt that was given to learners to respect their experience. The initial prompt states, "After your experience answer the follow questions: What do you notice? What does it remind you of? What do you wonder?" After the initial prompt, learners are asked the following: After your reflection, journal about what you already know about trees. Did you know you can identify a tree by its leaves? Imagine one tree that you do know. Can you name the tree? Picture the leaves that come from your tree. What are their colors, shapes and textures? Do the leaves have smooth edges, wavy edges or toothed edges? Describe the leaf in as many details as possible. What do you know about that particular tree? Have you ever wondered how many different trees you might see on one walk? Take a few minutes to ponder in words.

The sequential modules were designed around elements of stretch, sketch, and connect. The "stretch" of each module included short movement and nature podcasts-mindfulness. The "sketch" portion of each module took the participant outdoors with recommended hikes through DEWA where participants were asked to sit, engage their senses, and write in their response to the prompts. "Connect" encouraged participants to write about their experience in a journal and share some experiences with the other participants in the group in a Canvas discussion board.

Success was based on individual ethical assumptions that participants would be authentic and share from their own experiences. Group harmony was built from an individualistic lens and not competitive. There were no exemplars at this time. Part of the aesthetic includes the advertising materials. The flyer was created in Canva with a naturalistic type of theme and icons that addressed the senses.

Implementation using Formative Evaluation

We were interested in formatively evaluating so when it was time to implement the course, we solicited participants. For the implementation, two instructors oversaw the participants. The instructors were not part of the initial design team. One had an

instructional technology background and another was a National Writing Project Fellow. There were 11 people who gave feedback. Seven were course participants, three external reviewers, and one conducted a Diversity, Equity, and Inclusion audit. The course participants and reviewers were provided with a small stipend for their input. Below we analyze the implementation evaluation through the shallow, surface, and deep cultural levels by examining the participant's identities, discussion posts, surveys, and the Diversity Equity and Inclusion (DEI) audit.

Surface Cultural Level in Implementation

There was no feedback regarding the surface level design elements which included the media, greetings, and calendar. However, since the course was voluntary, participants self-selected based on alignment with their beliefs. The financial stipend (\$50) was not high enough to attract teachers beyond personal interest. We expected the teacher-participants to be interested in writing, curious about the outdoors, and desiring something that lowers stress.

Shallow Cultural Level in Implementation Using Formative Evaluation

There were ten teachers that started the course. The social interactions and course norms were dominated by discussion boards at the end of each module. In a sample response below, the participant shares a reflection on nature, based on the sight module:

So much in nature changes with the seasons!! Life is really like that as well!! I'm not a huge fan of change because it scares me, but thinking of how the leaves change back and forth and the roles the leaves play (or don't play) in the different seasons....shade in the summer but lack of leaves opening up to let in the light in the darker, colder winter... makes me actually embrace change. Well, in theory at least..

The participant conveyed the meaning of observation using sight and nature while comparing changes in nature with change in life. This demonstrates that the participant was meeting some of the course goals which were "experience nature mindfully through their senses" and "natural way to include both reflective writing and shared responses."

We were also interested in the connections that students were making while encouraging one another. In part of a response, a participant writes: "People and leaves acting as changemakers really stuck with me. What an amazing perspective!" Another participant replied: "I enjoyed the metaphors you included when describing the leaves!" A different participant replied: "Love this comparison!!! So much that occurs in nature really applies to our everyday lives...especially when I look at my diverse classrooms and all the different roles played by each student and colleague." The sample group interaction demonstrates a norm that evolved throughout the modules where participants built their thoughts from one another. The exchange verifies an instructional goal being met, "learners gain an appreciation of the diversity that nature offers."

Deep Level in Implementation Using Formative Evaluation

In a course, deep level culture would include exemplars that we did not have yet, nor did we know what to expect since this was the first time using the course. Instead, we observed the patterns. As the course continued, the group responses became increasingly longer. In the aesthetic, there was an appreciation of nature. The participants were creating their norm and building connection. The samples shared are shortened for the article. For example, one participant wrote in the taste module:

Many of us have lost our ancestral connection to nature. Or, it has become dull. We are able to rely on the convenience of packaged items and don't have to think about the growth to table process. However, I do feel many of us have realized this and are seeking to reconnect. as for living in the wilderness. I hope I could. I know it would be extremely difficult but, I feel like I have a little bit of knowledge that would get me by. I grew up wandering through the woods. We regularly ate wild greens, mushrooms, and wildlife.

Another response went deeper into the participants' family experiences.

Agree!! This makes me think of my dad's mom, my Grandma Katie. She used to come and visit from Florida. She would be outside picking dandelions in our yard, and we thought she was nuts! And she would produce the most delicious dandelion salad you ever tasted! We did not think she was nuts as we were eating it!! My mother's mom also used so many fresh herbs and plants and to this day, I love the memory of her homemade iced tea with fresh mint leaves that she grew in the garden behind her garage. As an adult, I marvel at this because my Grammy lived just outside of Philadelphia, just steps away from what I would consider a city setting, yet she grew all her own vegetables and herbs in that well-planned garden behind the garage!!

Within the space the course created, participants connected to their family roots, experiences from the past and their current experiences with nature. The learners' "well-being" was enhanced through "reflective writing" a course goal.

Evaluation through Participant Survey and DEI Audit

There were three ways the evaluation was conducted. First, participants completed surveys halfway through the course and at the end of the course. Second, those who facilitated gave anecdotal feedback. Lastly, a Diversity Equity and Inclusion (DEI) auditor reviewed the course.

Both the midterm survey and end survey asked questions at different depth levels. Interestingly, five participants completed the mid-survey and seven completed the final survey. Since no names were given, we do not know the participants that completed both, but can report the identifiers for the seven. Of the ten participants that started, three did not continue with the end-of-course survey. Of the seven teachers, all identified as white females: one taught K-5 teachers (students ages 6-10), four taught middle-level grades 6-8 (students ages 11-13 years), and two teachers taught 9-12 graders (students ages 13-18).

Shallow Culture in Evaluation

In the mid-way survey, there were standard questions about usability. In the mid-way survey, one participant would have liked a "check mark" to appear after completing a task, and expanded, "Course navigation was a bit awkward for me - a suggested calendar or numbered steps would be helpful." We agreed with the participant, but the free version of Canvas had its limitations, so we were unable to implement a completion indicator. In the final survey, six of the seven completers found the course easy to navigate and user friendly. By the end, the activities chosen were rated agree or strongly agree for ease of use of the course including the media and discussions. In terms of the shallow cultural elements, the course was meeting goals.

Surface Culture in Evaluation

Both in the midway and final surveys, participants addressed some of the social interactions, norms, sequence, and effort. Overall, participants enjoyed learning at their own pace, the outdoor recommendation, and applying what they learned to their classroom which was the last assignment. Out of seven participants, six found the movement and mindful videos interesting, and all were satisfied or very satisfied with the course.

Below are brief comments from the final survey addressing some of the course's learning goals.

Participant: This course served as a reminder of how much I enjoy creative writing. I also enjoyed reading the writing of my classmates.

Participant: I truly started to think more about the environment as I experienced it. I also learned how to connect those experiences to my writing. My goal is to do the same with my own students.

Participant: I am journal-writing more, I am using some of the resources, and I recommended things to family and friends.

The course aimed to achieve some effective goals with the appreciation of the outdoors and wellness joined with writing and reflection. None of the participants-initiated mentioned diversity or interconnection of diversity in the open-ended question.

There was a suggestion for more variety in the interactions by a participant that did not have experience with Canvas, but still had an opinion about the way participants could express themselves:

I never used this online program before, but I would suggest adding various assignments, besides discussions, to the course if you can. I also would add more technology. For example, we could do a Flipgrid video discussion while we are actually hiking! We could also incorporate pictures of the things that we are experiencing.

Providing multiple means of expression (CAST, 2018; Chardin & Novak, 2018) would allow participants to demonstrate their understandings in a way that may be stronger for them which can increase interaction and engagement with the community and content (Hammond, 2015; Jones, 2020; Lehman & Conceicao, 2010; Safir & Dugan, 2021).

Deep Culture in Evaluation

Goals Met

In the end-of-course survey, qualitative questions were asked about how the participants grew and more suggestions for improvement. Participants felt that they grew in their understanding of nature and included feeling better throughout the day. Below are three quotes that support the various areas of personal growth:

I found that I was able to relate so much of the natural things in the world to my classroom and students.... Like a little ecosystem in my classroom!

I feel that this course helped me to slow down and appreciate nature more. I felt that it was easier to clear my mind/become more mindful on my last walk.

While I did not complete the recommended hikes, I did walk in my own area and nearby woods. Having a set time to get outside and connect with nature was rewarding. Having this time connected to a course made it a time I felt I couldn't remove it from my schedule. Too many times, taking time out of the week to explore nature seems like taking frivolous time. When in fact it is taking crucial time for oneself.

Benefits were the intentional practice of slowing down, an increase in outdoor activities, the prioritization of self-care, and fostering a reflective mindset. One participant successfully incorporated their learning from the course into their classroom environment. There were three external reviews that previewed the course, who also indicated views as expressed above. This ensured that the course appropriately addressed the first three goals.

Goals Unmet

There were unmet design and learning goals. We also intended that participants would feel the value of the diversity nature offers. When we asked participants in the open-ended question about how the participants grew no one initiated "appreciation of the diversity in nature." It could be that participants already had that recognition, but it could also be that we missed an opportunity to be explicit about the learning goal.

Participants were asked for suggestions. One participant discussed a self-created option that would increase the feeling of success and open the course for those less able.

Add a self-created hiking option (or a reminder that this is ok) and some info for hiking/exploring nature for those with mobility needs. I felt like some people might feel this course means those without mobility needs. Adding a few tips to make it more accessible would help it appeal to a larger audience.

In a course that aims to be inclusive, these were salient issues that would increase success and still meet our goals. We needed to have obvious links to the DEWA map that had mobility access since our links were not noticeable enough. Likewise, we indicated that participants could use their own hike, but it was not reinforced enough that self-selected outdoor spaces were valued as much as the DEWA hikes.

Feedback from the DEI audit uncovered deep cultural considerations, specifically, the values of "success" or the unconscious assumptions. The DEI report was conducted after the course was completed, and the auditor addressed areas we had not anticipated such as using the word "should." The auditor identified directions that we gave to participants, "In many of the elements of this course 'should be'" was written when referring to the hikes. The auditor suggested rewriting the directions as "Many of the elements of this course are 'suggested to be.'" Then, the auditor noted why the word choice of "should" was not recommended for this case. "The word 'should' can trigger feelings of guilt or shame if they can't," contrasted with the word "could." "Could" prompts participants to propose self-created hikes and would not induce feelings of shame if they were unable to complete the DEWA hikes. As a design team, we were reminded how "should" should be intentionally used, reserved for undisputed expectations.

The auditor recognized another word choice, "but" - "and." The auditor suggested a rewording in the directions for participants. The directions read "There will be key questions to guide your thoughts, but you are welcome to move beyond the suggestions." The auditor suggested restating "using the word 'and' in place of 'but'". "But" suggests one is better than the other. 'And' holds both ideas equally." The DEI auditor made similar recommendations throughout the modules. These subtle changes invite all ideas rather than excluding thought (Brown, 2012).

Unlike the participants, the auditor also detected that we were trying to foster an appreciation of diversity.

I get the sense that Module 2 is about what we can learn about diversity from nature - to better help us understand the diversity of people and how sight provides one perspective unless we are deliberate about noticing the uniqueness of all living things.

The DEI auditor was the only evaluating participant that articulated any mention of diversity or the uniqueness of living things. From our perspective, the auditor described a learning goal that was too subtle for others to notice: to gain an appreciation of the diversity that nature offers. Her comments signal that that goal should be addressed deliberately, less subtly, if we want the learning goal met.

In terms of participants' gender, we noticed that the course appealed more to women than men. One designer communicated with male teachers that originally said they would participate but then did not. Informally, the men told the designer, that they did not like the one icon on the advertising flyer – the icon with the tongue representing the sense of taste. The deep level of cultural aesthetics in the images did not appeal.

The deliberate implementation and evaluation of the model yielded information about the ways that shallow, surface, and deep culture was met for the course. As to be expected, surface culture was easier to meet because it entailed overt elements such as prechosen pictures and quotes of which we were aware. Shallow and deep cultural elements such as navigation and word choice were more challenging to pre-identify without the outside voice.

Discussion of the Depth Levels of Culture and the Instructional Design Process

The process of looking through the cultural levels during instructional design processes highlighted equity fulfillment, deficits, and opportunities for designers. The findings, summarized below, embed the system's contexts with recommendations to better address the surface, shallow, and deep cultural levels. As designers of the course, we wear cultural humility. Nomikoudis and Starr (2016) write about how to embody cultural humility: "maintain a constant state as both learner and self-reflective practitioner" (pg. 70). And, so it is, that we learn from our work.

On the surface level of culture, searching for representative media with a Google Search needed to be purposeful since typical searches yielded images and quotes representing people who are phenotypically White (Nobel, 2018). Finding images and quotes that represented BIPOC peoples in a temperate forest biome took extra steps. We needed to qualify terms or utilize friends for images.

The image and quote level challenges are symptoms within the supra and macro systems where searches are based on the dominant culture (brown, 2017; Harro, 2018; Nobel, 2017; Sockman & Kieselbach, 2022). Currently, search efforts require instructional designers to go beyond the traditional search methods since algorithms may not produce the desired results even with specific descriptors such as "women" or "people of color" (Nobel, 2017). We are a search-driven society with images and quotes impacting impressions. Our experience demonstrates that instructional designers would benefit with more people of color in basic image and quote searches about nature, so the outdoors are welcoming to all.

On the shallow level of culture, other than navigation and technologies, test participants suggested no modifications. The lack of suggestions could be symptomatic of the self-selected participant pool of those who identified as racial White – female gender and were perhaps already comfortable in the virtual space we created.

Deep level of culture considers aspects that move toward the learning goals and away. First, we address the learning goals. Participants dove into meaningful dialogue about themselves, and their appreciation of nature, but missed what the DEI auditor noticed: the comparison of biodiversity with the diversity of people. We are aware that interconnection in nature could be seen as a dangerous metaphor when advocating for equity (Dennett, 1995), but also, nature needs biodiversity for healthy biomes (brown, 2017). As designers, we intended to mirror the interconnectedness in nature and diversity needs in our lives to be healthy. The students' omissions suggest that designers need to be more explicit to help the students "see" the diversity quality in nature.

Aesthetics resides in deep culture. From front-end analysis to evaluation, the team composition affected the design in the deep cultural elements. The team identified as females, which was indicative of the supra and macro systems challenges dominantly female representation in education (Cabral et al., 2022; Finnely, 2014; Shaw-Amoah et al., 2020). In the advertisement, two males mentioned the "tongue" as deterring involvement. If we want to attract gender diversity, aesthetic matters. We recommend that recruiting materials are tested with people who identify as part of marginalized groups in the field.

Lastly, deep cultural elements surreptitiously appeared in word-choice. In this project, the DEI auditor evaluated at the end, and suggested language modification more welcoming of divergent thinking. She recommended more "and" and less "but," more "could" and less "should," which coincides with the psychologist researcher Brené Brown (2012) who noted that these words can induce shame which insinuates inadequacy. Based on what we experienced, we recommend having the DEI auditor embedded in the process rather than at the end so that deep cultural expectations could be modified before implementation.

The goal of the course was to enhance learners' well-being. Through the test participants and the DEI audit, we found successes and design gaps. Our learners successfully connected with nature in meaningful ways and wrote authentically about those experiences.

The unmet deep cultural levels goals were identified as word choice, advertisement aesthetic, and participant's omission of nature's diversity.

Conclusion – Intentionally Moving Forward

In this paper, we presented a design case for a comprehensive seven-module course that aimed to cultivate mindfulness of nature, sensory and physical engagement, reflective writing, and connection with diverse aspects of nature. Through our experience, we demonstrated how the influence of the larger system manifests in the smaller implementation of course design (brown, 2017; Banathy, 1992). Initially, our design team consisted of teachers, professors, DEWA personnel, and local mindfulness instructors who represented the dominant gender and culture in PA education (Shaw-Amoah et al., 2020). This composition had an impact on various aspects of the design process. Recognizing the limitations of our team's demographics, we incorporated a DEI auditor at the end of the creation phase. In retrospect, it would have been advantageous to have the modules audited throughout the design and development stages, rather than waiting until implementation and evaluation, given the homogeneous perspective of our design team.

Throughout the design process, we were intentionally mindful of the Levels of Culture (Hammond, 2015, pp. 22-24) and instructional design considerations (Sockman & Kieselbach, 2022). We purposefully integrated images, quotes, and content that acknowledged the surface, shallow, and deeper levels of learning necessary to achieve our goals. While our design work was not exhaustive, it represented a step towards recognizing and embracing our interconnected differences, allowing us to gain a better understanding of the processes and objectives required to foster social justice in our instructional designs.

Acknowledgements

We share our gratefulness to the National Writing Project and the National Park Service for giving us this opportunity to learn and grow by funding a collaboration between the university, teacher designers, DEWA, and teacher participants. Without them, this study would not have been conducted. This work was partially funded by the National Writing Project.

References

- Banathy, B. (1992). *A systems view of education: Concepts and principles for effective practice, educational technology*. Educational Technology Publications.
- Best Practices Clearinghouse (2023) *Equity focus*. U.S. Department of Education. <https://bestpracticesclearinghouse.ed.gov/equity-focus.html>
- Branch, R. M. B., & Kopcha, T. J. (2014). Instructional design models. In J. M. Spector, M. D. Merrill, J. Elen, & M. J. Bishop (Eds.), *Handbook of research on educational communications and technology* (4 ed., pp. 77-87). Springer. <https://doi.org/10.1007/978-1-4614-3185-5>
- Behizadeh, N. (2014). Adolescent perspectives on authentic writing instruction. *Journal of Language and Literacy Education* [Online], 10(1), 27-44. Retrieved from <http://jolle.coe.uga.edu>
- brown, a. m. (2017). *Emergent strategy: Shaping change, changing worlds*. AK Press.
- Brown, B. (2012). *Daring greatly: how the courage to be vulnerable transforms the way we live, love, parent, and lead*. Gotham Books.
- Cabral, L., Eddins, M., Lapp, D., & Nelson, S. (2022). *The need for more teachers of color*. Research for Action. <https://www.researchforaction.org/research-resources/k-12/the-need-for-more-teachers-of-color/>
- CAST (2018). Universal Design for Learning Guidelines version 2.2. Retrieved from <http://udlguidelines.cast.org>
- Chardin, M., & Novak, K. (2021). *Equity by design: Delivering on the power and the promise of UDL*. Corwin.
- DeGoff, K. (2023). We're still here. *National Parks: The magazine of the National Parks Conservation Association*, 97(1), 32-40.

- Dennett, D. C. (1995). *Darwin's dangerous idea: evolution and the meanings of life*. Simon & Schuster.
- Dick, W., Carey, L., & Carey, J. O. (2014). *The systematic design of instruction*. Pearson Education.
- Ferdig, R. E., & Pytash, K. E. (2021). *What teacher educators should have learned from 2020*. Association for the Advancement of Computing in Education (AACE). <https://www.learntechlib.org/primary/p/219088/>
- Finnley, C. (2014). *Black faces, white Spaces: Reimagining the relationship of African Americans to the great outdoors*. University of North Carolina Press.
- Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice*. Teachers College Press.
- Gupta, S. (2021). *Keep sharp: Build a better brain at any age*. Simone & Schuster.
- Hammond, Z. (2015). *Culturally responsive teaching & the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students*. Corwin Press.
- Harro, B. (2018). The cycle of Socialization. In M. Adams, Blumenfeld, W. J., Catalano, D. C. J., DeJong, K. S., Hackman, H. W., Hopkins, L. E., Love, B.J., Peters, M.L., Shalasko, D., Zúñiga, X. (Eds.), *Readings for diversity and social justice* (4 ed.). Routledge.
- hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom*. Taylor & Francis.
- Hook, J. N., Davis, D. E., Owen, J., Worthington Jr., E. L., & Utsey, S. O. (2013). Cultural humility: Measuring openness to culturally diverse clients. *Journal of Counseling Psychology*. <https://doi.org/10.1037/a0032595>
- Jones, B. D. (2020). Motivating and engaging students using educational technologies In M. J. Bishop, E. Boling, J. Elen, & V. Svihla (Eds.), *Handbook of research on educational communications and technology: Learning design* (5 ed., pp. 9-30). Springer. <https://doi.org/10.1007/978-1-4614-3185-5>
- Keltner, D. (2023). *The new science of everyday wonder and how it can transform your life*. Penguin Publishing Group.
- Kendi, I. X. (2019). *How to be antiracist*. One World. <https://doi.org/10.1177/0196859920961032>
- Kixmiller, L. A. S. (2004). Standards without Sacrifice: The Case for Authentic Writing. *The English Journal*, 94(1), 29–33. <https://doi.org/10.2307/4128844>
- Love, B. L. (2019). *We want to do more than survive: Abolitionist teaching and the pursuit of educational freedom*. Beacon Press.
- Lehman, R. M., & Conceicao, S. C. O. (2010). *Creating a sense of presence in online teaching: How to "Be There" for distance learners*. Jossey-Bass.
- Moore, A. (2022). *Historic discrimination to blame for diversity gap in US parks, expert says*. NC State University: College of Natural Resources News. Retrieved September 5 from <https://cnr.ncsu.edu/news/2022/02/historic-discrimination-to-blame-for-diversity-gap-in-us-parks-expert-says/>
- National Park Service. (2023). *National Park Service: About us*. Retrieved April 27 from <https://www.nps.gov/aboutus/index.htm>
- National Park Service. (2013). *A call to action. Action 13: Stop talking and listen, A Toolkit for engaging communities and fostering relationships*. <https://www.nps.gov/subjects/policy/upload/Task-9-Engaging-Communities-Toolkit.pdf>
- National Park Service Conservation Study Institute. (2011). *Beyond outreach handbook: A guide to designing effective programs to engage diverse communities*. <https://www.nps.gov/civic/resources/Beyond%20Outreach%20Handbook.pdf>
- Netting, E. F., Kettner, P. M., McMurty, S., & Thomas, M. L. (2017). *Social work macro practice* (6 ed.). Person Publishers.
- Nobel, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. NYU Press.
- Nomikoudis, M., & Starr, M. (2016). Cultural Humility in Education and Work: A Valuable Approach for Teachers, Learners and Professionals. In J. Arvanitakis & D. J. Hornsby (Eds.), *Universities, the citizen scholar, and the future of higher education* (pp. 69-84). Palgrave Macmillan UK. https://doi.org/10.1057/9781137538697_6

- Roger B., & Horn, C. (2000) Developing motivation to write, *Educational Psychologist*, 35:1, 25-37, https://doi.org/10.1207/S15326985EP3501_4
- Safir, S., & Dugan, J. (2021). *Street data: A next-generation model for equity, pedagogy, and school transformation* (1 ed.). Corwin.
- Shaw-Amoah, A., Lapp, D., & Kim, D., Y. (2020). *Teacher diversity in Pennsylvania from 2013-14 to 2019-20*. Research For Action. Retrieved June 6 from <https://www.researchforaction.org/research-resources/k-12/teacher-diversity-in-pennsylvania-from-2013-14-to-2019-20/>
- Sockman, B., & Kieselbach, L. (2022). Instructional design embedded in culture. In J. Stefaniak & R. M. Reese (Eds.), *Instructional practices and considerations for training educational technology and instructional design professionals* (pp. 266). Routledge.
- Spring, J. (2018). *The American school: From the Puritans to the Trump Era* (10 ed.). Routledge. <https://doi.org/10.4324/9781315145136>
- Starnes, J. & Sockman, B. (2021). Supporting student voice to protest and the impetus for change. In A.M. Bond, S.R. Tamim, S.J. Blevins, & B. Sockman. (Eds.). *Systems thinking for instructional designers: Catalyzing organizational change*. Routledge. <https://doi.org/10.4324/9781003028772>
- Stroh, D., P. (2015). *Systems thinking for social change: A practical guide to solving complex problems, avoiding unintended consequences, and achieving lasting results*. Chelsea Green Publishing.
- Svihla, V., & Boling, E. (2020). Introduction to design case chapters. In M. J. Bishop, E. Boling, J. Elen, & V. Svihla (Eds.), *Handbook of research on educational communications and technology: Learning design* (5 ed.). Springer. <https://doi.org/10.1007/978-1-4614-3185-5>
- Wargo, K. (2020). A Conceptual Framework for Authentic Writing Assignments: Academic and Everyday Meet. *Journal of Adolescent & Adult Literacy*, 63(5), 539– 547. <https://doi.org/10.1002/jaal.1022>
- Wiggins, G., & McTighe, J. (2005). *Understanding by design* (2 ed., Vol. 1). Association for Supervision and Curriculum Development.
- Wilkerson, I. (2020). *Caste: The origins of our discontents*. Random House.
- Woodley, X., Hernandez, C., Parra, J., & Negash, B. (2017). Celebrating difference: Best practices in culturally responsive teaching online. *TechTrends*, 61(5), 470-478. <https://doi.org/10.1007/s11528-017-0207-z>
- Zivot, E. (2010). *The process of outreach to under-served communities by National Park Service Employees* (Doctoral Dissertation). https://tigerprints.clemson.edu/cgi/viewcontent.cgi?article=1925&context=all_theses





Beth Rajan Sockman

East Stroudsburg University

Beth R. Sockman, Professor Professional & Secondary Education - Instructional Design Technology, East Stroudsburg University, bsockman@esu.edu. Beth works as a professor and chair of the Department of Professional and Secondary Education-Instructional Design Technology. She delights in using systems thinking to co-create experiences that are valued, authentic and equitable for learners so that they can empower others in culturally relevant and sustaining ways.



Laura Kieselbach



Robin Danning



Devin Heffernan



Jessica T. Hill



Jamilyn Husted



Caitlin Sullivan



This content is provided to you freely by The Journal of Applied Instructional Design.

Access it online or download it at

https://jaid.edtechbooks.org/jaid_12_2/from_nature_to_pen_designing_an_inclusive_writing_course_for_educator

