Introduction

This chapter makes the case that providing carefully designed peer-to-peer student-centered learning (SCL) opportunities within higher education (HE) can lead to multiple intellectual and personal benefits for learners. It draws from a design-based study that sought to develop precollegiate students’ understanding of the topic of human migration via an online, social media-type platform. Participants explored the phenomenon of human migration individually, often in deeply personal ways, and then learned both with and from other students engaged in the same exploration. This chapter suggests that experiences which enable learners to tap into the knowledge, experiences and perspectives of diverse peers can enhance their substantive understanding of a phenomenon, as well as promote deeper understandings regarding the constructed and contingent nature of knowledge, including the ways in which their own perspectives and understandings have been influenced by cultural, political and social forces.

While this study involved teenage participants, the overarching design principles remain relevant for HE contexts. Indeed, somewhat older students are likely to gain more from such experiences given their presumably enhanced capacities for critical and abstract thinking including about themselves (Harter 1999); at the same time, students in the 18–25 age bracket in particular are still developmentally primed to grapple with issues concerning their own identities and lives, especially in the context of an increasingly complex world (Arnett 2015). It is also worth noting that while technology was leveraged to connect young people from different classes with one another in this study, the design principles could be replicated within a single class, with or without technology.

In what follows, some theoretical background is presented. The background to the design-based research study and the research methods are then described. The findings are reported in a way that highlights the special potential of carefully crafted peer-to-peer SCL experiences to
accelerate learning in ways that can be intellectually enriching as well as engaging for students. The implications for HE contexts are discussed as well as some puzzles, limitations and potential avenues for further research.

**Theoretical background**

This section outlines the literature and practices that influenced the approach to SCL taken in this study: research related to peer-to-peer learning pedagogy, especially in the context of HE settings; young people’s developmental needs; epistemological understanding both with regards to the study of history and general cognitive development; and design-based research practices in education.

**Student-centered learning**

This study was an initiative of Project Zero, a research center known for promoting and even articulating broadly constructivist student-centered approaches to learning (e.g., Blythe 1998; Gardner 1985; Tishman et al. 1993). That is, young people are seen to actively construct knowledge rather than passively receive it, and productive learning environments are seen to be ones in which individual learners are given opportunities to develop their own ideas and “thinking dispositions” through a variety of modalities that allow for different learning styles and intelligences. Following from Bruner (1960), Perkins (2009) argues that learners of all ages benefit from authentic learning experiences that mirror real life or expert versions of a phenomenon. It is important for learners to be given opportunities to engage with the kinds of questions, problems, or processes that resemble those taken on by practitioners or experts. Learners also need opportunities to apply or “perform” their emerging understandings in novel situations rather than merely repeat what they have been told to learn (Wiske 1998).

Collaborative or peer-to-peer learning opportunities are typically part and parcel of student-centered pedagogical approaches given the benefits of students learning with and from one another (Crumly 2015), particularly when learning is documented or “made visible” in ways that account for both individual and group learning (Krechevsky et al. 2013). Light structures, such as thinking routines (Ritchhart, Church & Morrison 2011), can be powerful mechanisms for giving individual students voice and pushing thinking in group settings.

The study that is the focus of this chapter incorporates and extends this body of student-centered practice and research; as described later, it involves an experimental online learning community designed to foster thoughtful intercultural interactions among youth from around the world in ways that leverage the affordances of social media-type environments. It particularly featured the concept of slow looking and listening (Tishman 2018) on the grounds that starting with students’ own observations and intentionally seeking to have them move beyond first impressions can lead to them developing new insights or more nuanced understandings about a phenomenon, especially if they are doing so in conjunction with other learners and benefiting from their close observations too.

**Peer-to-peer learning**

Peer-to-peer learning is a broad descriptor for educational practices that involve opportunities for learners to both support and learn from one another; as noted previously, it is associated with SCL approaches. Practices include peer mentoring, peer feedback, and collaborative assignments. In HE and beyond, the term “peer learning” is most closely associated with Eric Mazur’s
work in undergraduate physics classes. The specific pedagogic format he developed carefully builds in opportunities for collaborative knowledge retrieval and application in the pursuit of understanding agreed-upon concepts such as the laws of gravity (Mazur 1997). Mazur's pedagogy has been widely adapted and modified within different contexts and has been particularly influential in undergraduate science, technology, engineering and mathematics (STEM) or science courses. In other HE contexts, forms of peer-to-peer learning have foregrounded learning goals other than content mastery, such as enculturating students into academic practices and building their self-esteem as scholars (Hilsdon 2014). Meanwhile, Mazur himself has pointed to domain-general benefits of peer learning such as critical thinking and metacognitive monitoring (Schell & Butler 2018), as well as the building of cooperative rather than competitive classroom learning environments.

The design of the study reported on here resonates in some ways with Mazur's peer learning model. However, students in this case were invited to engage in a more open-ended exploration of a complex and ambiguous topic. In this regard, the study highlights the potential for SCL to advance student understanding in social studies or humanities-oriented disciplines which involve grappling with less defined or agreed-upon content areas than, for example, physics or computer science. It also focuses on different potential affordances of group learning: while Mazur’s model amplifies opportunities for retrieving and applying knowledge, this study focuses on opportunities for students to share complementary knowledge and experiences and to negotiate multiple perspectives (Nokes-Malach et al. 2015).

The developmental needs of students

The field of emerging adulthood suggests that vital development work – once the purview of late adolescence (Erikson 1968) – is being deferred until later in the life cycle and squarely into what for many are their college years (Arnett 2015). It is therefore important for students enrolled in HE to have at least some learning experiences that allow them to tap into issues concerning their own lives, identities and values, in ways that can simultaneously enhance their intellectual growth. Sociologists point out that while previous generations were largely ascribed particular identities, individuals today face a plethora of choices regarding identity construction – choices which demand an ongoing “reflexive project of the self” (Giddens 1991) and active attention to the kinds of life stories they want to put together (Beck 1992). New technologies are also altering how young people experience social life and the range of narratives or identities that are accessible to them (Turkle 1997). The learning design at the heart of this study was intended to promote participants’ intellectual understanding of a topic and provide a venue for them to explore their own identities and perspectives through interaction with diverse peers, with the aim of promoting and even accelerating development in both areas simultaneously (Dawes Duraisingh 2017).

Why epistemology matters: insights from history education

This chapter also draws on research into young people’s understanding of history, a discipline that is relevant here given the study’s focus on the topic of human migration – a complex and ongoing part of human existence. Following a cognitive psychology tradition, this literature sheds light on the tacit second-order or meta-historical ideas that underpin the ways in which young people make sense of the past, including epistemological ideas about the nature and status of historical evidence and interpretations and historical causality and change. Many of these concepts are “unnatural” or counter-intuitive (Boix Mansilla & Gardner 1997; Gardner 2000;
Wineburg 2001, 2018); young people often fail, for example, to consider the constructed nature of what counts as historical knowledge or the complex interplay between structural forces and individual volition (Ashby 2005; Ashby et al. 1997; Barton 2008; Lee 2005). Meanwhile, Boix Mansilla (2001) indicates that a particular challenge can be learners focusing on recording the past as accurately and completely as possible, which accords with an objectivist epistemology that allows for only one “truth.” While much of this literature relates to children, research among college-level students indicates that this challenge is also highly relevant to young adult learners (Carretero & Kriger 2008; Wertsch 1994; Wineburg 2018).

Lee and Shemilt (2003, 2004, 2009) and Blow (2011) have developed empirically based progression models for different meta-historical concepts; these models show how young people’s ideas about history can become more powerful and enable them to “do more” with their historical thinking and/or overcome “epistemological and methodological dead ends” (Seixas 2004, p. 105). For example, Lee and Shemilt (2004) outline six levels of thinking about historical accounts, including, for instance, the idea that accounts of the past are merely matters of opinion because nobody alive was there to see what happened, and the more sophisticated idea that accounts of the past must answer questions and fit criteria.

Epistemological issues and general cognitive development

Non-domain specific theories about young people’s cognitive development are also relevant. Perry’s (1968) developmental scheme, for instance, takes account of the tendency of many adolescents to lapse into extreme relativism – which maps on to some students’ tendency to view all historical accounts as being as good as one another. Meanwhile, Wertsch (1994) found that American college students typically produced a “quest for freedom” narrative when asked to explain the origins of the US: he differentiated between students who merely related the narrative as if it were uncontested information and those who discursively distanced themselves from it by stepping outside of the narrative framework to pass commentary on it. Relatedly, VanSledright (1998, p. 76) claims that an individual’s “historical positionality” – that is, “your own temporal bearings that you use to make sense of yourself in relation to the past and your imagined future” – are related to epistemological understandings or “how you know what you know and come to know it.”

It is hard to pin down students’ underlying epistemological stances, which may in any case be rather inconsistent or in flux, especially given that they may be trying to achieve several different things at once as they interact with other people or consider the past. However, theories which seek to account for the increasing sophistication by which individuals make meaning of the world, such as the potential move from passively accepting information from sources of authority to taking the responsibility of making meaning for oneself, embrace a constructivist as well as a cognitive developmental stance (e.g., Hofer & Pintrich 2002; Kegan 1982; Perry 1968). It is also worth noting that prevailing theory and practice in qualitative research routinely call for researcher reflexivity given that researchers cannot help but interact with the people and/or context under investigation and will bring a certain interpretative lens to their data (Luttrell 2010).

Well-designed peer-to-peer SCL opportunities can offer students a powerful experiential demonstration of the constructed nature of knowledge and how their own perspective on the world is influenced by various factors including their geographic location, the communities to which they belong, their life experiences to date, and even prevailing cultural and political narratives. Such opportunities are increasingly important given our age of information overload and interconnectivity. Learning experiences that offer opportunities to grapple with epistemologies – what is
worth knowing and why and how knowledge is constructed and validated – can prove useful for finding one’s way through the morass and discerning among competing, overlapping or merely false accounts (VanSledright 2009; Wineburg 2018), as well as the development of self-awareness regarding how one is situated within the wider world and interpreting it (Takacs 2003).

Background to the study: Out of Eden Learn

This study involved a curriculum called *Stories of Human Migration*. The curriculum was developed as part of an online learning community and research project called Out of Eden Learn, the name of which derives from a collaboration with writer Paul Salopek and his Out of Eden Walk project. The curriculum, co-designed by the author, Sarah Sheya and Emi Kane, convened teenage youth growing up in different parts of the world to investigate the topic of human migration in parallel with one another and to learn from and interact with one another regarding their various stories and perspectives. This English-medium curriculum encouraged them to think about the topic of migration expansively and in ways related to their own lives, whether or not they considered themselves to be migrants. Numerous external sources were also incorporated into the curriculum, including firsthand narratives of migrant and refugee experiences.

At the time of the study, the curriculum invited young people to listen attentively to and then recount the migration stories of family or friends; take slow walks in their neighborhoods, paying particular attention to both visible and invisible borders; analyze contrasting media representations of migrants and migration; and create resources to help newcomers navigate their local communities. They then posted their work and read and commented on one another’s work. The curriculum therefore combined low-technology activities that encouraged young people to engage with their communities and a social media-type format that inherently promoted constructivist approaches to education (Schrader 2015).

This curriculum was offered as part of a broader effort to promote thoughtful intercultural inquiry and exchange in the context of the Internet’s “echo chamber effect,” whereby people tend to connect with people who are like themselves and the content on their screens both reflects and reinforces their existing interests, views or predilections (Pariser 2011; Zuckerman 2013). In all Out of Eden Learn curricula, participants are invited to (1) slow down to observe the world carefully and listen attentively to others; (2) exchange stories and perspectives with one another; and (3) connect their own lives to bigger human stories and systems. Consistent with these goals and inspired by Project Zero thinking routines, a “Dialogue Toolkit” was developed for the platform (Krekemeier & James 2018) to encourage young people to listen and respond thoughtfully to one other: as noted earlier, light structures can facilitate SCL. It is worth noting that since this study was conducted, three new tools have been added to the toolkit (POV/Point of View, Challenge, and Name) to encourage more critical conversations among young people, while participants are also given opportunities to reflect on their own learning both as part of the activities and in a post survey. Overall, the curriculum design seeks to offer a rich learning experience that leverages the opportunity for young people to learn both with and from one another.

Methods

In what follows, the overall design-based approach to research is described. Next, the sample and various data collection methods are outlined: teacher interviews; student work and comments by other students on that work taken from the Out of Eden Learn platform; and student post-survey responses. Finally, the analytic process is described.
Design-based approaches to educational research build on existing knowledge and research to try to create effective learning interventions or contexts; learners’ responses to these interventions or contexts are then studied and the design is further iterated upon. Meanwhile, tools and theory can be generated from these “natural laboratories” in ways that go beyond the confines of a single study (The Design-Based Research Collective 2003; Sandoval and Bell 2004): a great deal can be learned from what learners choose to say and do within these designed spaces, and this kind of research benefits from being grounded in real-world practices that account for the complexity and messiness of learning. The findings reported on below reveal some of the learning possibilities that can happen when students are given opportunities to learn both with and from one another in engaging and personally relevant ways. All data analysis was conducted by the co-designers of the Stories of Human Migration curriculum.

Fourteen interviews with teachers from six countries were conducted to understand how they implemented the curriculum and incorporated it into their existing practices and what they believed their students gained from participating in the program. For the purposes of this paper, the transcripts were analyzed to look for signs of resonance with student work and survey responses, and to provide important contextual information.

Data analysis focused on a close examination of student work and comments. The 140 participants in the sample, all teens, came from Argentina, Australia, Canada, China, Indonesia, Singapore, and the US (five different states). They participated in Out of Eden Learn via regular classroom instruction: the decision to participate was therefore taken by their respective teachers. These students were selected because they were in the two learning groups with the highest levels of participation out of a total of eight groups who were following the Stories of Human Migration curriculum at that time. Detailed demographic data were not collected for individual students because their identities were protected on the platform. However, it is known that they were situated in a variety of public and private institutions – some demographically quite homogeneous and others more racially and ethnically diverse – and that they were variously enrolled in English language, history, journalism and photography classes.

Student work from the platform, with all accompanying comments, was exported from the platform into a spreadsheet for a first round of analysis. This work included student responses associated with the curriculum activities: conducting interviews, taking neighborhood walks, engaging in media analysis and producing newcomer resources, as outlined previously. Initially, 50 pieces with accompanying dialogue threads were coded using an abductive approach (Deterding & Waters 2018). That is, while the coding was informed by a constructivist approach to grounded theory (Charmaz 2006) and there was a genuine attempt to learn open-endedly from what young people were doing and saying – such as making personal connections to peers’ migration stories, critically analyzing news articles, or stating that they now felt motivated to follow migration in the news more carefully – the research team’s interpretations were also shaped by the goals and design of the curriculum.

Additionally, post-survey responses by 65 participants were exported from Qualtrics software and analyzed. Some but not all of the survey responses were by the same young people whose work and comments were analyzed. Questions included ones that asked participants what they thought they had learned about human migration; if particular interactions with other participants had felt important to them; what they thought was challenging about learning about the topic of human migration; and if or how the learning experience had impacted what they were now doing (e.g., how they were interpreting news media, interacting with people in person or via social media, talking about migration or thinking about the world).

An initial codebook comprising ten primary categories and 44 sub-categories was developed, with the data analyzed using Dedoose coding software by three researchers who divided up the data,
meeting periodically to compare findings and discuss challenges. In all, 485 pieces of student work, along with associated comments, were examined. The post survey responses were similarly analyzed, providing a helpful complement to the student work in that they allowed for private reflection by participants about their learning. The codebook was consolidated and the data recoded, with 76 pieces of student work coded by all three researchers to establish consistency. A pedagogic framework was developed for educators (Dawes Duraisingh, Sheya & Kane 2018). In this chapter the findings are discussed in terms of the affordances of peer-to-peer SCL opportunities.

**Study findings**

The findings from this study indicate that learning gains can occur across three distinct dimensions in peer-to-peer SCL experiences, at least in the case of this curriculum: curiosity and engagement about the topic; nuanced understanding of the topic; and critical awareness including one’s own relationship to or perspective on the topic.

**Curiosity and engagement**

While this study was conducted with pre-collegiate students who did not necessarily choose to be enrolled in the program or even in school itself, instructors at all levels of education are generally concerned with learner engagement and motivation (Barkley 2010). Even accounting for the fact that they were provided with a toolkit to facilitate dialogue and were posting comments in a safe online environment where their true identities were not revealed, there was ample evidence that young people in this study responded with warmth and appreciation to one another: they frequently expressed gratitude for the opportunity to interact with peers who had different life experiences from their own, praised one another’s work and thanked other participants for taking the time to read their work. Participants seemed to admire peers who shared personal migration stories, especially if they made themselves somewhat vulnerable in doing so. For example:

I find it so interesting that even throughout the hardships you faced, not just with the move, but also your parents’ divorce, that you kept a positive outlook on the journey itself. You were introduced to new people and new things and you embraced that, I admire that so much!

Such comments arguably demonstrate the developmental needs of young people on the cusp of adulthood as much as their intellectual interest in migration.

Participants often asked questions of one another to encourage further sharing: “It must of [sic] been hard, going all the way from Africa to the United States. How was it adjusting to the new environment? Why did you move?” or “What was the hardest thing you had to adjust to, the new culture, people, living arrangements, etc.?” Some participants moved beyond endorsing a post or asking questions to disagreeing with an expressed view:

I see your point definitely, but I personally do not agree with it. . . . I do agree with your views on legal immigration as opposed to illegal, but I do believe it is important to remember that not everyone has the same opportunities or abilities, and that sometimes it’s necessary to break rules in order to survive.

Participants frequently pointed out connections and similarities among stories, including to their own lived experiences – for example, a Korean student connected a student’s neighbor’s story about
overcoming adversity to her own experiences of being bullied as an outsider in a Seoul elementary school:

When an outsider tries to enter a tight-knit community, they can face a lot of hostility and, in your case, potentially abuse based on their appearance. It is a huge obstacle which prevents humans from interacting with each other positively and productively, and with the election of our new president, I don’t see that ending any time soon.

While one would naturally expect more substantive and sophisticated discourse at the HE level, the widespread popularity of social media across all ages suggests that this format, which facilitates peer-to-peer interaction, can be an effective way to engage young people in the exploration of a topic.

In addition, participants made a variety of comments in their survey reflections that indicated some longer-term impact in terms of engagement around the topic of human migration and ways of interacting with the world. For instance, they talked about being more media savvy: “I now read media outlets with more ‘caution’ knowing that it is important to have an opinion of your own rather than having it easily swayed by how media portrays certain issues.” Others reported feeling empowered and equipped to discuss the topic of migration with friends and family members – for example, “Now that I know of this situation I love discussing with my grandparents. This was something I did not discuss before, but now I can do it.” Another student expressed that she is now more attentive to topics connected to migration and “can give deeper opinions” when she engages in conversations around migration. Several claimed that they were now making more effort to engage with migrant students in their school communities. For instance, one student said:

Because of the current immigration issues in the United States and this learning experience I find myself more involved in the news media and just interacting with the people around me who have different cultures and backgrounds and asking them what they think as well as conversing with them in general about this topic.

Here the student reports a higher level of intellectual engagement with the topic and a broader dispositional shift to seek out different perspectives.

**Nuanced understanding**

This peer-to-peer SCL format was also found to facilitate substantive and conceptual understanding of the topic of human migration. The experience primarily helped participants understand that there is considerable diversity in terms of individual migration experiences – across different contexts and situations but also within the same communities or groups of migrants. Such understandings were enhanced by peers from different contexts sharing stories with one another and being surprised both by the variation across stories but also some similarities. For example, one participant described her mother’s largely positive experience of migrating from Malaysia to Singapore but pointed out:

However, this is not representative of all the migrants. I have been researching about rural-urban migration in China and India recently, and though the migration does allow for more job opportunities, it does have many downsides and impacts on the person and the country.
Promoting engagement and understanding

Others commented on the variety of reasons for people migrating, as represented by the stories posted by peers on the platform, as well as differences across countries and different time periods in the way in which migrants are received. If migration is defined in expansive terms, all students in a classroom are able to juxtapose stories of migration that matter to them or to people that they know and develop more nuanced understandings of the topic.

Participants also had the opportunity to explore the complexity of individual experiences and the myriad emotions that can be involved. One student described her stepmother’s migration from Cambodia to Thailand and then to the US during the Vietnam War, and how that experience still influences her behavior: “When she was crossing the border, her mother took all their clothes in order to sew pockets in the bands to make sure that they could keep their valuables. Yay still sews pockets in her bras to keep her money in.” Participants also shared stories that showed how migrants develop new cultural practices while still retaining the ones related to their heritage, such as cooking certain dishes or remembering particular celebrations. Young people also shared personal stories of migration, which often generated a good deal of interest about these life experiences. For instance, one student whose mother’s second marriage entailed him moving from Mexico to Argentina recounted:

At first I was very shy so it was difficult for me to adapt to the new form of life but even so this journey made me see the different traditions of people and let me make new good friends and I am proud of it.

Young people in this study less frequently grasped the opportunity to explore the complex relationship between structural forces compelling or inducing migration and individual motivations to migrate. All participants benefited from rich and detailed accounts of individual migration stories that accounted both for factors beyond an individual’s control – such as wars or political oppression – and individual desires or aspirations such as seeking educational or work opportunities or pursuing love. However, they did not necessarily reflect on or seek to unravel the complexity of push-pull factors involved in immigration stories – most likely a flaw in the curriculum materials which left this thinking to happen spontaneously rather than an inherent limitation of the peer-to-peer SCL format.

Critical awareness

A key affordance of a curriculum and learning context such as this, and arguably of particular importance for learners in HE, is the opportunity for participants to reflect critically on and consider their own and other people’s perspectives on migration. Young people generally appreciated the opportunity to learn from a variety of migration stories and recognized the importance and complexity of perspective taking. As one participant noted,

I was able to see different perspectives and other stories that were unique. I was also able to share my own thoughts at the same time. This was a very different experience [to be able to] look at stories through different perspectives of different people.

However, understanding the perspectives of those caught up in forced migration, for example, is not cognitively or emotionally easy, as some but not all participants recognized: “I had to think hard about what I posted in case it could offend someone, which is the last thing that I wanted.”

Given the timely and potentially sensitive nature of the topic of human migration, critical media news literacy was woven into the curriculum – with participant responses indicating
different levels of complexity that align with the literature on epistemological understanding and historical understanding. For example, some emphasized figuring out the “truth” – certainly not to be taken for granted in the current news media climate. One student, for instance, commented on the way in which “word choice can be manipulated,” adding, “It is really kind of scary, because how can anyone really know the truth about immigrants in Turkey if articles on the topic voice opinion instead of facts!” Other participants focused on which kinds of media they believed to be most trustworthy, with some viewing level of detail or “thoroughness of facts” as most important and others deeming oral interviews or videos to be inherently more trustworthy than written articles. Some were concerned about the ways in which media can “dehumanize” refugees and other migrants; others accused outlets of hiding or withholding information. In the most nuanced responses, however, participants actively considered specific aspects of pieces of media: the purpose, intended audience, likely perspective or affiliations of the author, and/or use and effect of particular language and visuals. They analyzed the tone and visuals of specific news sources and how certain journalistic choices were intended to elicit particular emotions or reactions by news consumers, such as compassion, anger or outrage.

Participants frequently commented to one another that they had experienced a shift in their perspective or thinking about migration or migrants: for instance, one participant wrote, “Wow I really enjoyed this post! You took this to a unique place that dealt with pressing social issues. I never really considered the negative borders that are around that I can’t even see.” Some participants spoke about considering individuals in a new way or hesitating to think they know their story:

Yes, I think about the students who come to our school from other countries much differently. Some of them could have gone through a lot to come here in search of a better life, and I wouldn’t even know it.

Some attested that they had developed new attitudes as a result of engaging with other young people around the topic of migration. One participant reflected:

As a result of my participation in this learning journey, I have begun to make an effort to become less judgmental and more understanding because I, now, have reflected on and realized my bad habit of subconsciously enforcing my own biases on others.

Another participant said, “I feel that my participation in this learning journey taught me to consider the similarities and differences between cultures more so I could look at issues from multiple perspectives.” Some actively reflected on their own tendencies to see the world in a particular way or to quickly judge people:

my interaction with [student name] was one that I felt was extremely important because her insights really opened up my eyes, to understand and reflect on my own biases . . . reading about her experience where her first impression was proven wrong, made me reflect about the times in which I stubbornly labeled people by my first impressions of them.

A small number of participants commented in more meta ways about how their own experiences and cultural context helped shape their views on migration. One student noted the difficulty of understanding other people’s experiences: “rules, norms, and boundaries or the ways in which we move around are culturally generated and our perception of what is normal is
shaped by the environments in which we grew up.” In a related line of research involving Out of Eden Learn, researchers found that a small number of participants were able to reflect on their own perceptions of different cultures and how they had been shaped by different influences – which they attributed to this learning experience (Dawes Duraisingh et al. forthcoming). Such insights, which were relatively rare among these teenage participants would presumably be more common among college-age students, as one college professor found in his earth sciences class which sought to tap into the life experiences and perspectives of students, in part to make them more aware of their epistemologies and to appreciate the legitimacy of their own viewpoints and life experiences. Such learning experiences can be transformational for students, especially those who may have hitherto felt sidelined or marginalized by education systems (Takacs 2003).

Challenges: overgeneralization, overconfidence and othering

Peer-to-peer SCL designs such as the one involved in this study certainly offer important learning opportunities, even if they by no means guarantee that learners will embrace or benefit from them. However, challenges were also observed – ones that in this case were potentially exacerbated by the online format and elements of intercultural dialogue. These challenges can be distilled down into the “three Os” of overgeneralization, overconfidence, and othering – a schema applicable beyond the parameters of this particular curriculum (Dawes Duraisingh et al. forthcoming). Overgeneralization involved participants invoking single stories about migration or migrants, making highly general or sweeping statements about migrants, or ignoring similarities and/or differences among different migration stories. Participants manifested overconfidence when they seemed to lack appropriate humility about how much they actually knew about the topic, over-asserted themselves as being able to represent particular groups, or presumed their own experiences and/or perspectives as the norm. Othering, meanwhile, involved participants appearing to romanticize or exotify other people’s lives or situations or to make migrants objects of pity in uncritical or even disrespectful ways.

In practice, the three Os were often entangled and could also appear in statements that otherwise reflected positive aspects. US youth, who made up just over half the participants in this study, sometimes tapped into the idea of the American Dream in ways that sounded overgeneralizing or overconfident. For instance, the following comment, while presumably well-intentioned, arguably sounds patronizing, especially to those for whom opportunities seem beyond reach: “Stories like this are always so nice to hear. Anyone can make it in America if they work hard, despite hardship; America is the land of opportunity.” There was sometimes a fine line between pity and empathy. For instance, one participant commented that as result of reading various news articles she is now more aware of challenges associated with migration: “I realized how hard life is for these people. I now know that even if this situation seems so unreal, it happens every day.” She arguably overgeneralizes about migrants’ experience; furthermore, the wording “these people” seems to put a gap between herself and the people she has read about in ways that assume that none of her peers have had firsthand experience of migration.

Participants could express binary ways of thinking about migrant experiences and issues related to migration, often in ways that reflected prevalent political and media discourses in the Global North. For example, one student contrasted “desirable” and “undesirable” migrants:

From my point of view immigrants can be a problem as well as a solution it depends of [sic] what kind of people they are, if they have studied and they work to help the countries, they are a solution, but if they haven’t studied and the government is spending the money on people that don’t work and only make problems they are a problem.
Some of these challenges are understandable given the sensitivity of the topic and the potential risks of misunderstanding associated with intercultural encounters. Among teenage youth at least, the immediacy of “insider” firsthand accounts, while engaging and motivating, can lead to a misplaced sense of learning the “truth” about certain cultures or groups of people and the replacing of one single story with another. In this context, however, most problematic comments were made about curriculum resources such as articles, videos and other multimedia content rather than directly to or about peers and their stories. There is ample opportunity here for instructors to unpack such comments to further enhance student learning; meanwhile, some teachers in their interviews talked about pre-emptively cautioning students to consider how their comments might be perceived by peers living in different contexts and with different life experiences.

Discussion

This study involved young people aged 13–18 years old: clearly one would expect more sophisticated responses from students enrolled in HE. Yet the affordances of a design that taps into young people’s own connections to a topic that gives them opportunities to explore or discover those connections, and then allows them to learn both with and from one another, has applicability well beyond pre-collegiate classrooms. As discussed earlier, if designed well, such experiences can promote curiosity and engagement, more nuanced understanding about a topic and, crucially, a development of greater critical awareness or self-awareness about one’s own perspective on the world and even how that perspective has been shaped by various influences.

It is hard to disentwine which elements of this design-based study were most effective or adaptable to other learning contexts. However, the incorporation of an inquiry-based approach that involved the principles of “slow looking” and which drew directly from participants’ own experiences was a powerful point of departure for learning: participants often found themselves reconsidering what they knew about migration in situations that were close to them at the same time as they were learning about more distant contexts. The development of the Dialogue Toolkit, which was inspired by Project Zero’s thinking routines, further supported productive peer-to-peer exchange, including the posing of thoughtful questions. Creating diverse learning groups – or finding ways to draw out differences in experience, perspective, or opinion – was also a key element: the variety made the space inherently more interesting and engaging, helped participants to develop more nuanced understandings of the topic, and potentially called into question their own experiences, perspectives or opinions as being a baseline norm.

In addition, facilitating explicit opportunities for participants to reflect on the learning taking place and to become more aware of their own perspectives and experiences relative to those of others were important. At the least, the design enhanced participants’ appreciation for and knowledge of diverse experiences and perspectives. Throughout, tapping young people’s developmentally driven inclination to explore their own lives, identities and values served the dual purpose of helping them to grow as individuals and to develop intellectually in ways potentially involving important epistemological insights.

The three Os point to some accompanying challenges that were of particular resonance given the thematic focus and online intercultural context, but which have broad applicability in any peer-to-peer learning situation. In particular, the power of young people learning firsthand about the world from one another can lead to them being overconfident that they have now heard “the truth” about something rather than one particular perspective, at least in a pre-collegiate setting. On the one hand, it could be helpful to intentionally toggle between research papers in which researchers are suitably cautious in terms of the claims that they make and more
immediate student-generated observations and anecdotes; on the other, it could be useful to preemptively make the challenges of the three Os explicit to participants from the outset.

Of course, many uncertainties remain, including the relevance or transferability of the *Stories of Human Migration* study to HE settings. Some of the factors at play, such as the relative novelty for participants to be able to interact with peers from different backgrounds, may be diminished in HE settings. However, HE students often find themselves for the first time in learning situations with peers who have very different life experiences from their own: in the US, for example, people increasingly live in segregated neighborhoods and attend relatively homogeneous schools (Rothstein 2015; Ryan 2011). The topic of human migration particularly lent itself to young people sharing personal stories involving a high level of human interest but many other topics in the social sciences and the humanities would presumably offer similar opportunities. Out of Eden Learn has developed a curriculum around the topic of planetary health, for instance, which draws on the learning principles of the platform to introduce and develop understanding of scientific concepts related to the environment and health; however, more theoretical or abstract STEM topics may be less amenable to this pedagogic approach. More fundamentally, this design presupposes constructivist approaches to teaching and learning and the value of multiple perspectives; courses that assume a more objectivist philosophy or one right way of doing things would be a poor fit for the kind of pedagogy espoused here. For instance, in contrast, Mazur developed his peer learning pedagogy to help students master specific and uncontested disciplinary content. It is also worth noting that due to the fact that teachers were incorporating the curriculum into different subject contexts and were located in a variety of countries with different curricula and standards, formal assessment goals and tools were not part of the study: instead, this learning experience complemented what teachers were already trying to accomplish with their students. In this sense this study points to useful tools and approaches rather than a whole package for instructors, like that offered by Mazur.

**Conclusions**

What principles or advice can be distilled from this one study for instructors working in higher education? The study suggests the potential benefits of inviting students to:

- **Slow down** to observe the world carefully and listen attentively to others so that they can push beyond immediate impressions;
- **Learn from their own and other students’ direct observations and/or life experiences**, perhaps via a platform where students can browse a variety of observations and perspectives at their own pace;
- **Try out light structures** such as thinking routines or Out of Eden Learn’s Dialogue Toolkit to enhance their interactions with one another and reinforce the practice of slowing down in their consideration of other people’s perspectives;
- **Compare and contrast** different ways in which popular media or other sources have represented the topic, using a critical lens;
- **Reflect** on what they have learned from being introduced to a variety of perspectives and experiences – both in terms of the complexity and nuance of the topic and the ways in which knowledge about the topic is constructed, including their own perspectives or understanding of it;
- **Be mindful of the three Os** of overgeneralization, overconfidence and othering in their responses.
The ideas shared here are clearly only one way of approaching peer-to-peer SCL. While pedagogic design is important, skilled instructors are ultimately essential for creating a climate conducive for learning and sharing at any age level, and to support students to make the most of learning opportunities presented to them: they also need to make judicious use of such strategies to make sure they fit the learning goals and student needs at hand (Nokes-Malah et al. 2015). Design-based research in a variety of HE settings could reveal the potential affordances and limitations of student-centered teaching and learning strategies such as the ones presented here that have largely been developed in pre-collegiate settings; straightforward survey or interview studies could reveal how receptive students are to such approaches and what they think they can gain from them. Given the complex and interconnected world in which we live, we owe it to students to give them the kinds of learning experiences that will help them to navigate this complexity, as well as to better understand and situate their own identities, lives, and perspectives within this landscape.

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Notes
1 More information on the Out of Eden Walk project can be found online at: www.nationalgeographic.org/projects/out-of-eden-walk.
2 The full curriculum is available at https://learn.outofedenwalk.com, although it has been modified and updated since this study; in particular, the final major activity has been redesigned to more explicitly support participants to reflect on and synthesize their learning.
3 The toolkit is available at https://learn.outofedenwalk.com.

References


