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Carola Hein
Bryn Mawr College

Sophia Abbot
Bryn Mawr College

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FACILITATING THRESHOLD MOMENTS IN INNOVATIVE 360° COURSE CLUSTERS

*Carola Hein, Professor of Growth and Structure of Cities, Bryn Mawr College
with Sophia Abbot, Bryn Mawr College, 2015*

Thresholds are transformative moments of learning that are irreversible, integrative, and discursive; they are moments when deep and often difficult learning occurs. Understanding and facilitating various types of threshold moments—social and academic—for teachers as well as students is challenging in itself. As we innovate in teaching and create new complex structures such as 360⁰ course clusters, identifying and promoting threshold learning becomes even more important.

In a 360⁰, a group of students takes two to four distinct courses in different disciplines that are organized around a common theme, place, or concept. This creates a need for additional opportunities to promote threshold learning. Co-teaching two 360⁰ course clusters and working with Sophia as a TLI student through the academic year 2012-13, raised for me the question: In the context of new and challenging forms of teaching, such as a 360⁰, how can we, as teachers and learners, create an environment that is conducive for threshold learning?

Thresholds in 360⁰s

In our conversations on the occasion of a faculty seminar on the topic of thresholds facilitated by Peter Felten, Fellow of The Andrew W. Mellon Teaching and Learning Institute at Bryn Mawr College, we developed various metaphors that illustrate threshold concepts and make them more tangible. As we explored these different metaphors we realized that there are social and academic thresholds, with the former helping to promote the latter. We also discussed multiple ways of crossing thresholds as learning can occur spontaneously and surprisingly or be attained after strenuous preparation and with anticipation, and we reflected on how to facilitate such deep learning.

Translating threshold moments into real life and particularly childhood experience may help us recreate the conditions for positive threshold moments. Children's learning includes crossing numerous thresholds, from learning to walk and experimenting with balance, to overcoming falls, to building character and establishing learning habits. Crossing these childhood thresholds comes with diverse signals that can be read by an observer: brilliant eyes and big smiles translate a sense of excitement and awe. It seems to me that some of the learning patterns that children have may be useful for learning throughout life. Referring back to such threshold moments may help us gain better understanding of the learning process and may open possibilities for new threshold experiences.

Assuming that we are discussing threshold moments as a learning tool, and that we are understanding education as an attempt at setting up thresholds in a non-threatening way, we can attempt to develop tools to transform the learning process into a playful experience. Referring back to positive childhood memories, we establish learning as a positive process even though it may include difficult or painful elements.

The threshold concept in my 360⁰ courses

A 360⁰ stretches students between academic and practical endeavors as well as between different disciplines. It furthermore offers diverse out-of-the-classroom experiences (fieldtrips, guest-lectures, organizing a conference, curating an exhibition, internships) and brings together several faculty and a group of students in a setting that does not have parallels on campus.

There are no other academic structures or opportunities that prepare students for such an intensive and integrated experience, one in which they are engaged personally as well as academically at a higher level than in any other academic setting. As a result, in a 360⁰ learning occurs in a less linear fashion (as it would in a single course). On a temporal and a spatial level, on a theoretical and content level, linkages are created between and among courses that are much messier than in a single course. In all of the 360⁰s that I have taught so far, my colleagues and I, as well as the students, have found ourselves yearning for even more class time to tie together the experiences from the different classes and for scaffolding and space for thinking in the interstices between the classes.

The courses in which I explored threshold concepts with Sophia were part of two 360⁰ course-clusters in the academic year 2012-13. The 360⁰s referenced here are respectively *Transforming the Legacy of Oil* (Fall 2012, Economics, History, Cities) and *Space and Identity* (Spring 2013, Psychology, Russian, Cities). We identified multiple thresholds, some that were related to the particular setting of a 360⁰ course-cluster, and others that were particular to the course materials:

360⁰ Thresholds

Students in a 360⁰ have a unique social experience. They take all three courses together and develop strong personal bonds. Thresholds in the 360⁰, both academically and socially, are crossed when discussion that happens in the classroom is shared on the way out of the room, in the dining halls, and in dorms. At that moment, students don't just share basic information about their life anymore, but engage in deeper conversation on the topic of class. As a result of this process, the dynamics of the group and even the posture of the students change. Once this process has started it can't go back and it will not be the same type of awkward or disconnected feeling of the first day of classes again. This bonding has a strong impact on group learning. Setting up group experiences for all the students and with the faculty provides an important setting for threshold learning.

In a 360⁰ students engage in a new learning process as the same overarching topic is addressed from different disciplinary, temporal, and spatial perspectives. As a result students need additional opportunities to discuss these findings from a trans-disciplinary perspective.

Course (and partly 360) thresholds:

City 377: Global Architecture of Oil

- The main argument underlying my course is the idea that economic networks and commodity flows—such as those of petroleum—are effectively written into the built

environment. I argue that these networks and flows connect spaces across the globe. I further argue that such a reading complements traditional analyses of architecture from artistic, aesthetic, cultural, construction-based, and other perspectives. Such an approach is new and students need time to understand the broader implications. This threshold is also intertwined with learning in the other courses associated in the 360⁰.

- I aim to tie the direct influences of oil on the built environment—i.e. extraction, storage, transportation, administration, resale—to the indirect influences such as the ubiquitous presence of oil in every day goods and the wide-spread use of petroleum-fueled modes of transportation. Again this is an approach that students have to grapple with so that they can apply this concept to their own research.
- To fully appreciate the implications of these hypotheses students need to use both trans-disciplinary and global approaches. Here again, it takes time to have them reflect appropriately on their own.
- Given that there is little secondary writing available that outlines my approach, students need to bring together a range of primary texts from different fields. This work with primary materials helps them develop work and research habits.
- Developing a research hypothesis and question (which I model in the course) is a threshold in itself. Using primary sources to support this argument is another one.
- Guest speakers who act as experts on oil in their own fields (from geology to entrepreneurship) bring in yet another dimension as they challenge students to explain the knowledge that they gained and assess the work of the guest speakers in terms of content as well as method.

City 315: Space and Identity in Hamburg

- This course had two main goals: first, it aimed to establish the concept of individual and communal identity as related to space. Therewith it was different from the two other courses that were focused on individual identities; second, it examined spatial identities through the particular case of the Northern German city-state of Hamburg from its medieval origins to the contemporary waterfront renewal of the HafenCity. It considered the city's urban form as locus of the multiple global social and physical networks that have shaped local identity. Students need to think about the ways in which physical space and individual as well as collective identities intersect.
- While this course concentrated on the analysis of the historic construction of urban identity in Hamburg and its impact on the built environment, I used Philadelphia to help the students gain a better understanding of the intersection between space and identity. This allowed them to apply their growing knowledge to a physical space firsthand.

How to address thresholds in the context of a 360⁰

In the two 360⁰s discussed here, I used various techniques to facilitate student learning and progress towards threshold learning.

In the Transforming Legacy of Oil 360⁰, I aimed to make students experts on specific topics, so that they could gain confidence in tackling the larger questions, the extensive materials, and the course cluster. For example, I asked students to do reading presentations in which they summarized several (4-6 readings) according to a couple of overarching themes that tied into our theme of oil and the built environment. They introduced the different authors, their disciplines, main hypotheses and supporting arguments briefly before discussing the different pieces in context, or they worked on a topic that they chose themselves. I also asked them to do topical inputs on issues of their choice in preparation for their final paper.

This approach taught students to work with primary sources, to extract the facts/themes that apply to their overarching question and to formulate a question and hypothesis related to the course. It also helped them assess the presentation of the guest speakers. This approach was furthermore important as it allowed students to develop an argument that they could pursue in their final paper. In our 360 these papers became part of a Whitepaper the abstracts of which (and sometimes the full dossier) were circulated to the academics, professionals, and other guests who attended the conference that the students had organized. Some students had trouble extracting the arguments and the data that related to our class, so I discussed the presentations with them before class presentation and turned their presentations into conversations in which I highlighted relevant aspects and included other students into the conversation.

In the Space and Identity 360⁰, I also gave student volunteers the opportunity to present on topics of their interest that were related to class. I designed the course so that students would become teachers and had to transmit what they had learned to other students and the 360⁰faculty. Rather than preparing an individual paper, groups of students chose topics related to our course on which they prepared group papers in the form of tourist flyers and descriptions. They had to prepare a tour around the topic of *Space and Identity*, present their preliminary ideas in class and finally transmit their research as part of a topical guided tour to students and faculty, first in Philadelphia and then for faculty and students in Hamburg. Students set their own deadlines (often earlier than what I would have aimed for). They had to prepare the whole setting from scheduling transportation to providing lunches. Embedding academic learning into this social and practical context allowed students to display different skills, it also helped create a group dynamic in which advanced students taught others.

Assessment of threshold learning

In a 360⁰, students participate in all three courses, and the social bond is stronger than in regular classes. (In our Oil 360⁰ this was a little harder to see, as class met only on Mondays and briefly on Wednesday, but after-class meetings helped build stronger connections). Sophia adds: “To further assess this communal threshold, it would have been nice to have had more than one fieldtrip. During the first fieldtrip—which occurred very early in the term—students relied heavily on the professors to supply both the content and connection making. I’m fairly certain

that if the trip were repeated near the end of the term, students who have now spent all semester making these connections in their classes would participate far more heavily in the discussion during the trip. In addition, I imagine that instead of separating themselves, as they did the first day in seating, the students would likely sit in clumps in order to better facilitate discussion among themselves. In terms of the academic threshold for the 360°, I think that a fieldtrip prepares them for thinking outside the box.”

It is harder to see students crossing conceptual thresholds. This requires that students integrate the overarching hypothesis and the goal of our course in their own reflections. For me, this means that I have to repeat the underlying hypothesis of the course as well as that of the 360° multiple times. Slowly, in-class conversations became more complex, and students started to refer to different guest speaker presentations and to inputs by their peers from a higher level of knowledge. In the inputs and reading presentations (for the *Transforming Legacy of Oil* 360°) as well as the tours (for the *Space and Identity* 360°) I had to continually push them on the larger overarching theme, and there were specific moments where I observed select students pass these conceptual thresholds. Over time, a broader understanding emerged and the second fieldtrip that students led in Hamburg demonstrated a higher level of integration between concepts and facts.

Sophia adds: “In both 360°s, the idea of student expertise was a way Carola and other professors encouraged the passing of thresholds. In the *Space and Identity* 360°, students were made experts when professors called on them to speak to experiences stemming from their major, hometown, or class year. For example, a student who was writing her thesis on one of the theorists discussed in Carola’s class was able to reword and explain the main ideas of that theorist in a more accessible way for the rest of the class. Because she had more recently passed the threshold of understanding this theorist’s work and applying it to her own interests, she was better able to facilitate that understanding for the class. Students who struggled to understand the connection between space and identity were eased across this threshold when Carola and the other 360° professors were able to push them to connect the theory with their hometowns. One student – from Korea – passed the threshold when she was able to apply the ideas of space and identity to the buildings and culture of Seoul.”

In my opinion, 360°s have thus become paradigms for the creation of trans-disciplinary spaces. As part of her TLI activity, Sophia wrote a logbook on interactions in class. For the 360° *Space and Identity*, I suggested that she should map the conversations, so that we could reflect on the location of the speaker in space and the interrelationship between the speakers. Throughout the semester we then refined Sophia’s map in terms of student major, direction of speech, and number of comments, creating a tool that could help a teacher intervene in discussions. In our particular case, this was not necessary, as students participated energetically in discussing. Examining the classroom maps, it was fascinating to see how students found different ingress points into the discussion, depending on their theoretical, methodological, or locational foundations or background. When I observed that a student was hesitant, seemed to not have a full grasp on the material, or needed to change their position in class, I tried to create new ingress points.

As students present their own research (inputs, reading presentations), they gain a new status in class, becoming nodes in the larger class discussion. The faculty and students will refer to them

as experts on a specific topic. Acknowledged in that way, students who are shy will speak more loudly in class and gain new assurance. It also changes the way in which students interact. When students cross these thresholds, they will improve their writing and their analytical skills. Doing these presentations as part of a team also prepares them for future work.

Sophia writes: “Because only these 11 students (for the *Transforming Legacy of Oil*) have been able to participate in all three classes and hear the experts that have been brought in, these 11 students have been made experts in this kind of cross or trans-disciplinary work. In understanding their positions as experts, the students have gained confidence in interactions with brought-in experts and professional people and are able to share their additional knowledge with these people. In this way, threshold concepts on an individual level are also very much linked with self-esteem and empowerment.”

And she continues: “In addition, these students were able to act as ‘nodes of teaching’ – in that their expertise as an art history major or cities major, etc. allowed them to enter the conversation in different ways. One student who did not have a background in any of the three disciplines in the *Space and Identity 360⁰* acted as a node of teaching by asking questions that allowed more students to enter the conversation and make connections between the classes. This questioning opened up conversation to students who did not necessarily have the same expertise in the subject and though the 360⁰ professors were playing this role in their teaching and facilitation, this student was able to act as a kind of co-teacher during some discussions through asking questions of her classmates.”

In conclusion, we have found that 360⁰s generate many opportunities as well as challenges and that it takes innovative pedagogical approaches to facilitate the crossing of thresholds for students in these course clusters. We see the social bonds facilitated by 360⁰s as integral to students’ ability for threshold learning, because their deeper connections to one another enable each student to support the learning of her or his peers. As students act as nodes of teaching or experts, they encourage other students to do the same. Promoting social bonds through diverse in-class and out-of-class experiences and providing students with diverse opportunities to lead class discussions and establish themselves as experts has facilitated threshold learning in these 360⁰ courses.