### Goal of the workshop

This workshop was hosted by the MD-DC-VA IBL Consortium from August 5 to August 7, 2020. Due to COVID-19 pandemic, this workshop was entirely synchronous via zoom. The workshop ran from 1pm to 3pm on each of the three days, with a special social hour on August 6 from 3pm to 4pm. Doing IBL in various combinations of in-person and online settings was new to most of us. By this time of the summer, most faculty already knew what modality their classes would be using for the Fall 2020 semester. We decided to split workshop participants according to their modalities instead of the traditional subject matter. Most workshop participants had some experience with active learning and inquiry-based learning in an in-person setting, so the main goals of this workshop were to give some examples of how inquiry-based learning can look like in online settings, to help them make the necessary transitions from in-person to online settings, and to introduce new tools and practices that are particularly suitable for an online setting. We also wanted to make sure participants were thinking about equity issues in both the online and hybrid settings.

## Initial Planning and Advertising

This workshop was originally scheduled as an in-person workshop in late May 2020, but got postponed due to the COVID-19 pandemic. The consortium leadership team met in early July and decided to try to plan a workshop for early August. We started with a brainstorming session of what components we wanted to have as part of the workshop. We decided on:

- A workshop component centered on teaching online or in the various hybrid modes instructors would be using in the Fall
- Spreading the workshop out over three days to avoid "Zoom fatigue"
- An invited talk on equity in online courses
- A contributed paper session
- A "circus" of five-minute talk slots, with an open signup
- Some informal socializing time

We came up with a draft schedule and sent invitations to our three facilitators and invited speaker. We were very fortunate that all were available and said yes! Our facilitators were:

Brian Katz, California State University Long Beach

Xiao Xiao, Utica College

Rebecca R. G., George Mason University

and our invited speaker was

M. Brielle Harbin

Here is the first announcement we sent to the consortium:

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The MD-DC-VA IBL consortium will host an online workshop August 5th-7th. Workshop sessions will include:

- discussions about equity in IBL classrooms,
- a contributed paper session,
- an IBL circus (see below for description), and
- brainstorming sessions for how to use IBL techniques in the various types of socially distant classrooms.

Workshop times (EDT) will be Aug 5th 1:00-3:00, Aug 6th 1:00-4:00, and Aug 7th 1:00-3:00. To register for the workshop and indicate your interest in presenting and participating in the circus, complete the google form [link].

Contributed paper session: We're seeking presenters for the contributed paper session. Presentations will be 15-20 minutes and can discuss any topic related to IBL. If you were planning to give a presentation at the Spring Sectional meeting, this workshop could be a great opportunity to share your work!

*IBL Circus:* At the circus, anything goes! Want to share an IBL activity that worked really well for your students? Want to mention a wonderful resource you've been using? Want to plug an upcoming event? Want to ask your peers a question? During the IBL circus you'll have the floor for up to 5 minutes and can use that time however you'd like! You can prepare a few slides if you want (similar to giving a poster presentation), but slides are not required. We look forward to seeing what you have to share!

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We ended up getting only one proposal for a contributed talk. We decided to cancel that session, and instead gave our one speaker a longer slot during the circus.

# Workshop Preparation

The facilitators (Brian Katz, Rebecca R.G., Xiao Xiao) were chosen in early July, giving facilitators about one month to prepare for the workshop. One month is not a lot of time to prepare for a workshop but here are some of the reasons that we think we pulled it off in such a short period:

- The consortium leadership team had laid out some very clear expectations and goals of the workshop. They had even created a draft schedule of the workshop so the facilitators could immediately start working on the details.
- 2) The three facilitators had already met in other scenarios, so there were some familiarities. In particular, when Rebecca R.G. was a postdoc at a previous institution, she had worked with Xiao Xiao in a one-semester mentoring program so they know each other pretty well. Brian Katz and Xiao Xiao had worked together in national IBL workshops for several years so there is a long working relationship.

3) The workshop did not involve any travel, so the logistics was easier compared to in-person workshops.

For another workshop, if the chosen facilitators have not worked with each other previously, we recommend at least 3 months for preparation time. If the workshop is in-person, then we recommend to start to prepare at least 6 months ahead of time.

The facilitators had two meetings that everybody attended. During the first meeting, we discussed

- 1) the overall structure of the workshop;
- 2) the live demonstration session of day 1, what problems to use, and what activities will be demonstrated

During the second meeting, we discussed

- 1) the breakout sessions, for example, criteria used to split the participants, and who will lead them
- 2) the format of the final report back session.

Rebecca R.G. and Xiao Xiao also met separately to discuss details of the discussion portion of the live demonstration session. Since Rebecca was the junior member of the facilitator team and is local to the MD-VA-DC IBL Consortium, we thought it would be helpful for her to be involved in leading workshop sessions as much as possible while giving her the support to prepare for those sessions. Since Brian Katz would be leading the math component of the demonstration session, we asked Rebecca R.G. to lead the discussion session while Xiao Xiao provided support to Rebecca during the discussion.

# **Participants**

At any given session of the workshop, there were about 20 participants. Participants (excluding the two facilitators) were all from the MD-DC-VA region so many of them already knew each other from previous local IBL or MAA section events. Most of the workshop participants were from different institutions and we did not see any single institution over-represented. Many participants were junior pre-tenure faculty but we also got a few senior faculty with lots of experience. We did not get any postdocs or graduate students attending this workshop.

### **Budget**

Since the workshop was fully online, we did not have any location, food or travel cost. The only cost was the honorarium for the facilitators. We paid each facilitator \$500, and our invited speaker was paid \$150 for a one hour talk.

#### Schedule

■ Copy of MDDCVA Workshop Schedule.docx

#### **Lessons Learned**

- Online IBL workshops (and probably online anything) will require more time to execute. We budgeted one hour for the live demonstration and the discussion portion. The math component took about 45 minutes and the discussion portion took about 15 minutes. Since we picked a very accessible question and that made it possible to complete it in 45 minutes. If we wanted the participants to have a more real IBL experience, we should probably have broken it up into two sessions: math session and the reflection session. The math session should have at least 1 hour with at least 30 minutes for the reflection session.
- It is important to have a designated person to be the tech support for each session. This person needs to be prepared for the breakout rooms, poll questions, providing links into the chat and other logistical business. Ideally this person should be part of the facilitator team so he/she can address some of the questions in the chat room as the chat room is often used as a silent discussion space that is parallel to the main session during online meetings.
- The schedule of this workshop worked very well. It was long enough for each session to have some deep and meaningful conversations but not too long so participants felt that they were sitting in front of their computers forever. It was certainly much better to have the entire 6 hours into three days instead of one day in the online format. But if this workshop were to be in-person, then a 1-day or 1.5-day workshop would make more sense.
- An important reason why this workshop worked pretty well was that participants were from the same region so most of them had seen at least a few familiar faces. We did not plan for any icebreaker activities for this reason and also because of the time constraints. If this was a national workshop, then an icebreaker activity would be warranted and it would take a lot longer for people to start to feel comfortable to share their ideas and thoughts during breakout sessions.
- We had a social hour on Wednesday using the platform gather.town. The platform has a
  lot of potential but there is some learning curve. It might be slightly too complicated for
  less tech-savvy participants.