

Your goal is to identify and remove barriers to equity, and to ensure full participation from marginalized groups and individuals. To do that, you need to identify barriers to equity and inclusion. Here are some potentially relevant barriers you may want to consider – notice that many are seemingly neutral if viewed through a narrow lens.

The list is not exhaustive. It is meant to help applicants brainstorm the barriers that are relevant to their research program, research group, department, field of study, and trainee applicant pool.

Note: many of these barriers can be avoided by developing and committing to individualized training and research plans with each trainee.

- Scheduling/hours
  - e.g. meeting times, experimental schedule (e.g. need to check on experiments frequently over a 24 hr period, or on weekends)
  - inclusion strained by appointments, family commitments or responsibilities, religious calendar
- Equipment
  - e.g. size of chairs, height of benches, tables, control panels, holding physical position for long periods of time
  - ensure physically and ergonomically appropriate equipment and access
- Equipment access
  - barrier may be requirement for acquiring permission from a lead researcher to access equipment
  - avoid by providing open access equipment, not behind locked doors, open calendar for booking time (when reasonable and safe)
- Training on equipment (accessible equipment):
  - provide ample opportunities for training for all potential users (related to scheduling and access list above)
  - avoid access limited to a narrow group who fit the training schedule
- Accessibility from IT perspective:
  - e.g. computer accessories at desk or to record data; handedness, software supports (voice responsive, read aloud), any related visualization needs, translation services...
- Training, in general:
  - ensure appropriate mentors, guides, trainers are available (see scheduling) and take acceptable approach to training (avoid sink or swim, learn on your own approach, or one size fits all)
- Economic barriers:
  - e.g. expectation to pay for other expenses up front; e.g. travel, pay for printed resources, office supplies, or to pay for costs upfront and get re-imbursed (time to repayment may be too long for some people)
  - allow cost/travel advances, access to procurement system
- Cultural and social barriers:
  - see scheduling issues,

- but also interactions with colleagues, expectations on behaviour and/or mannerisms, language expectations, elimination of microaggressions for not following perceived “norms”
  - see barriers to group interactions below
- Academic barriers:
  - e.g. associated with biases against or perceptions of differences in international curriculum vs national
  - e.g. research plan that does not provide time for course enrollment, language barrier to reading relevant material and engaging in conversation (in English)
- Mentors:
  - lack of appropriate mentors; e.g. mentors who understand barriers, understand unconscious bias, and know the resources available, but also help the trainee feel accepted and welcome
- Mental/Physical Health:
  - recognition of accumulated stress, practice work plans that include appropriate breaks, daily schedules that allow and promote activity, allowance for appointment times, family time
- Hiring barriers:
  - committees tend to relate to self, may have lack of awareness of unconscious bias, or use measures of excellence that only appear neutral
- Barriers to career progression, research opportunity
  - e.g. lead author, conference attendance, selected as trainer for incoming trainees, nomination for awards
  - ensure no one is held back due to perceived differences, unconscious bias
- Barriers to inclusion during group interactions, the learning or research space:
  - e.g. work, meeting and research space arrangements, such as how chairs are arranged during meetings.
  - specific barriers may be associated with differences in hearing, sight abilities, cultural or socioeconomic differences