

Criteria for POGIL Endorsement of a Collection

The POGIL Project endorses collections of POGIL activities in new content areas and/or levels to provide additional resources to the community. This process is appropriate for collections of activities that have already undergone extensive testing with students and have been used in POGIL learning environments other than those of the author(s). Authors are strongly encouraged to have prior formal training in writing activities within the POGIL Project, such as the Writing Track at a POGIL Summer Workshop or a POGIL Writer's Retreat - and to submit activities in development to the POGIL Activity Clearinghouse for formative feedback - before submitting activities for endorsement.

Definition of a Collection

- A collection contains at least 12 POGIL activities or experiments that are typically intended for use in one content area at one targeted instructional level.
- Each POGIL activity or experiment has an Instructor Facilitation Guide (IFG) as described in the Author Checklist below.
- Non-POGIL activities may be included in the collection for publication but will not be part of the peer-reviewed endorsement process and should not exceed 15% of the total number of activities.

Requirements for Endorsement

- All of the POGIL activities must meet the three criteria below:
 - 1. A POGIL activity is designed for use with self-managed teams that employ the instructor as a facilitator of learning rather than as a source of information.
 - 2. A POGIL activity guides students through an exploration to construct, deepen, refine and/or integrate understanding of relevant content learning objectives.
 - 3. The application and development of one or more process skills is embedded in the structure and/or content of a POGIL activity, and is not solely dependent upon the facilitation of the activity in the classroom or laboratory.
- At least 3 of the activities must have been submitted to and undergone review the POGIL Activity Clearinghouse (PAC).
- At least 80% of the activities in the collection must have been used by at least two instructors other than the primary author(s) in classrooms or laboratories with students. One of the instructors should be at a different institution than the primary author(s). The testing instructors are required to have had training in POGIL classroom facilitation. Collections of activities written collaboratively by a group of experienced POGIL practitioners may be tested internally as long as the primary author(s) and testers are individuals at different institutions.
- Normally, the number of *High Quality* POGIL activities (see description below) must be at least 80% of the total number of activities in a collection. None of the POGIL activities in the collection should be considered *Needs Revision*.



Characteristics of a High-Quality POGIL Activity or Experiment

- One to three Content Learning Objectives are articulated in the IFG and can be achieved by the intended student audience through successful completion of the activity.
- At least one Process Learning Objective is clearly articulated in the IFG and is developed in the activity or can be inferred by specific prompts in the activity, not solely through facilitation.
- The activity guides students through an exploration to construct, deepen, refine and/or integrate understanding of relevant disciplinary content. The intended approach (Learning Cycle and/or Application) is indicated in the IFG and is appropriate for achieving the stated Content Learning and Process Learning Objective goals.
- The quality of the model(s) and/or experimental protocols are sufficient for the targeted student audience to achieve the goals of the activity.
- The language and context of the activity are appropriate for the targeted student audience and reflect the guidelines in the "Guiding Principles" document.
- The activity is designed for use with self-managed teams that employ the instructor as a facilitator of learning rather than as a source of information.
- All information provided and concepts developed in the activity are correct or valid, and the activity is unlikely to introduce misconceptions.

Endorsement evaluation results in one of the three following designations for each activity:

High quality: These activities clearly meet all of these characteristics (but are not necessarily "perfect").

Good: These activities generally meet the above characteristics, but would be considerably improved from a small number of substantive changes (typically one or two) to structure or content. Activities in this category should generally be revisable within a reasonable time frame to achieve *high quality*. In some cases, an activity might be in this category because it is of high quality in all but one (or, in rare cases, two) of the characteristics.

Needs Revision: These activities require considerable changes or revisions to meet most of the characteristics outlined above. An activity that contains substantive errors in content or is likely to introduce significant misconceptions would fall in this category.

General guidelines for endorsement evaluation when using the Endorsement Review Rubric:

High quality: Essentially all scores of 3; typically no more than two scores of 2. In most cases, no scores of 0 or 1.

Good: A mixture of scores of 2 and 3, but a majority of scores of 3. In most cases, no 0 or 1.

Needs Revision: Less than 50% of the scores are 3 and/or there are multiple scores of 0 or 1.

Author Checklist for submission

-

¹ See *Author Guidelines for Developing POGIL Classroom Activities* for a detailed description and comparison of Learning Cycle and Application activities (available on the Writing Guidelines page at https://pogil.org/authoring-materials/writing-guidelines)



- □ Activities have been used with students in a classroom or laboratory setting as part of regular course instruction.
- ☐ At least 3 of the activities must have been submitted to and undergone review the POGIL Activity Clearinghouse (PAC). Activities have been revised based on substantive feedback from PAC reviewers.
- ☐ Activities have been revised based on substantive feedback from at least two instructors (other than the author) who have used the materials with students, at least one of whom must be at a different institution.
- □ A collection submission form has been completed, including feedback (or a summary of the feedback) from at least two other identified instructors who used a substantial portion of the materials with students.
- □ Activities are formatted following the approved guidelines provided by The POGIL Project office, using only approved, open-source fonts. All artwork is open-source, original, or used with documented permission of the copyright holder.
- □ Each activity includes an Instructor's Facilitation Guide (IFG) that contains the following information:
 - type of activity (Learning Cycle, Application, Non-POGIL)
 - prerequisite skills
 - content learning objectives
 - process learning objective(s)
 - materials needed (if applicable)
 - safety information (if applicable)
 - general facilitation notes
 - suggested answers to questions
 - Information about timing, including suggested breaking points if instructors need to spread over multiple periods, is desirable.
 - For laboratory experiments, the facilitation guide should contain example instructions for using particular equipment (such as Vernier), sample student data, and any relevant references to the literature.

Submission Process

Each year, no later than January 15, the Endorsement Coordinator, in consultation with the Associate Director, will determine the deadlines for the submission of activity collections for endorsement for that year:

- Around March 15: Intent to submit a collection. Authors must notify the Endorsement Coordinator by this date of their intention to submit a collection for endorsement. Included in this notification should be the content area and intended level of the activities, and also a rough estimate of how many activities will be in the collection.
- Around May 15: Collection Submission. All activities in the collection and associated forms are due by this date.

After a collection is received, the Endorsement Coordinator is responsible for determining whether all required materials (as indicated in the Author Checklist) have been received. If not, the Endorsement Coordinator may solicit the missing materials with a revised deadline.



The Endorsement Coordinator is also responsible for an initial "editorial review" of the collection to confirm that the collection is appropriate for Endorsement Review at that time.

If, at any time after the Collection Submission deadline, the Endorsement Coordinator determines that the collection should not be reviewed (for example, if there are missing materials or if the collection is not appropriate for endorsement), the Executive Director (or their designee) will be consulted. If there is agreement by both individuals that the collection should not be reviewed at that time, the authors will be so informed and the reasons for the decision will be communicated to them.

Review Process for Collections

Number of activities examined

- For collections containing 18 or fewer activities, all activities in the collection will be examined.
- For collections of 19 36 activities, 18 activities will be examined. The first six activities in the intended order of use will be examined, and any activity for which one of the first six is the immediate prerequisite will also be examined. The remaining activities will be selected at random.
- For collections of greater than 36 activities, at least 18 activities will be examined using the criteria described in the previous paragraph. The Endorsement Coordinator, in conjunction with the Director (or their designee), will determine whether additional activities will be examined.

Reviewers

Reviewers will be selected by the Endorsement Coordinator; typically, they will be trained reviewers for the PAC.

Reviewers will undergo specific training for Endorsement Review as designated by the Endorsement Coordinator.

Each selected activity will be assessed by at least two reviewers using the Endorsement Review Rubric approved by the Steering Committee.

The reviewers will individually evaluate the activities using the Endorsement Review Rubric and place them into one of the three categories described previously.

Endorsement

After the reviews are completed, the Endorsement Coordinator is responsible for assigning the collection to one of these designations:

- Endorsed. At least 80% of the POGIL activities are *High Quality*. None of the activities are *Needs Revision*. There are no revisions (or only a small number of designated minor revisions) needed. After any designated revisions are made and approved by the Endorsement Coordinator, the collection should be finalized and published; no further Endorsement Review is needed.
- Endorsed, pending revision. Collections in this category include (but are not limited to):
 - The revision of one or two *Good* activities to *High Quality* would result in at least 80% of the activities being *High Quality*;
 - The revision (or removal) of one or two *Needs Revision* activities that can likely be accomplished in a short period of time.
 - A sufficient number of issues with content or presentation that the Endorsement Coordinator would like to have addressed prior to final endorsement.

The Endorsement Coordinator will communicate the issues that need to be addressed and is responsible for determining when the revisions are satisfactory. This determination may or may not include the use of a trained reviewer. However, the collection does not need to go through the



Endorsement Review process again.

• Not Endorsed. Fewer than 80% of the activities are rated *High Quality* and/or there are more than two *Needs Revision* activities. The collection may be resubmitted for Endorsement Review in the future.

Once preliminary approval for endorsement is obtained, a content expert will review the entire collection before publication.



Process for POGIL Endorsement of a Single Activity or Small Number of Activities

The activity endorsement process is for authors:

- who would like to publish one or more POGIL activities that have been previously used in the author's classroom and beyond
- who plan to do scholarly research (leading to possible publication describing use and/or assessment) that involves one or more POGIL activities in the classroom or laboratory and who desire external validation that the activities are considered by The POGIL Project to be high quality POGIL activities or experiments.
- who plan to add activities to a previously published collection.

Authors will submit their activities to the POGIL Activity Clearinghouse (PAC). Once successfully approved through the PAC, the authors may consider the activities endorsed for use. Authors may claim approval from The POGIL Project to describe their activities as POGIL activities in a publication describing use and/or assessment of the activities. The POGIL Project suggests use of the following or a similar acknowledgement statement: "The authors are grateful to The POGIL Project, which has reviewed and endorsed the activities utilized in this study."