



## Process for POGIL Endorsement of a Collection

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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 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 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 by 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.

**Note:** A reflection on the feedback from PAC reviewers and classroom testers and a summary of the revisions based on feedback must be submitted with the collection.

- 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<sup>1</sup> 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.

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<sup>1</sup> 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>)

## Author Checklist for submission

- All 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 by 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 written reflection on the feedback from the PAC and classroom testers with a summary of the revisions based on feedback must be submitted with the collection.
- An Endorsement Collection Submission form has been completed.
- Activities are formatted following the approved guidelines provided by The POGIL Project office, using Times New Roman and/or Calibri typefaces and fonts ([link](#)). All artwork is original, or the source is logged here, or is used with documented permission of the copyright holder. (Source log and any documentation for permissions should be submitted with the collection.)
- Table of Contents
  - Activity Title
  - Learning Objectives
  - Process Skill Objectives
- Activities
- Instructor's Facilitation Guide
  - Each activity includes an Instructor's Facilitation Guide (IFG) that contains the following information:
    - type of activity (Learning Cycle, Application, Non-POGIL)
    - flow (through the activities, pre-requisite knowledge, etc.)
    - 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 IFG 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 1: 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 a rough estimate of how many activities will be in the collection with a draft table of contents.
- Around May 15: Collection Submission. All activities in the collection, a complete table of contents, 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.

### **Activity Review**

Collections will undergo a two-stage review in the formal review process.

1. Stage one – identify substantial issues that will likely lead to rejection of the collection. Teams will develop efficient working strategies and plan for stage 2
  - A rubric will be used to assess the same 4 – 6 activities (45 - 30 min/activity: review 6 activities, discuss at least 4 during meeting (more for shorter activities)) to determine:

- POGIL Fidelity: The extent to which students will learn the intended content. The activities are free of content errors or other content- related problems.
  - Questions that help determine POGIL Fidelity:
    - Will students construct an understanding of the content and achieve the learning objectives through a guided inquiry approach?
    - Do the activities generally conform to the POGIL learning cycle or application activity?
    - Are specific process skills identified?
    - Will students develop the stated process skills and achieve the process skill objectives through the completion of these activities?
    - Do the activities promote the cooperative engagement of all students?
    - Are students prompted to assess what they have learned in terms of content and process skills?
- POGIL Values: The extent to which the collection is consistent with the POGIL [Guiding Principles](#) and the expectations for inclusiveness and diversity.
  - Questions that help determine POGIL Values.
    - Do the activities use graphics and language that are audience appropriate and accessible to a diverse population of students?
    - Do the questions and text promote inclusion by choosing language that is audience appropriate and accessible to diverse student populations.
    - Is this a coherent collection of activities that make sense as a collection?
- A summary of the evaluation, including the extent to which these activities meet both criteria will be prepared. Comments on the collections strengths and weaknesses are critical to the evaluation.
- Rating: Excellent, Very Good, Good, Fair, Poor
- Based on the above criteria, the collection will be classified for the next level of review:
  - Move forward without reservation
  - Move forward, but some trend(s) need(s) addressing
  - Reject

Wrap-up meeting with 30 min report out of general observations – general questions about process/rubric, recommendations (tricks/insights) for moving through the process

2. Stage two will determine the collection’s Final Ranking (High Quality, Good, Needs Improvement)
  - The same rubric will be used to assess the:
    - Content learning objectives
    - Process learning objectives
    - Activity structure
    - Model/Experiment quality
    - Language/Context
    - Facilitation
    - Content accuracy
  - General comments will be provided if less than High Quality

## 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.

Additional steps will be taken between the content review and publication; however, those are beyond the scope of this document.

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