How to survive to a patch integration

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Moodle HQ

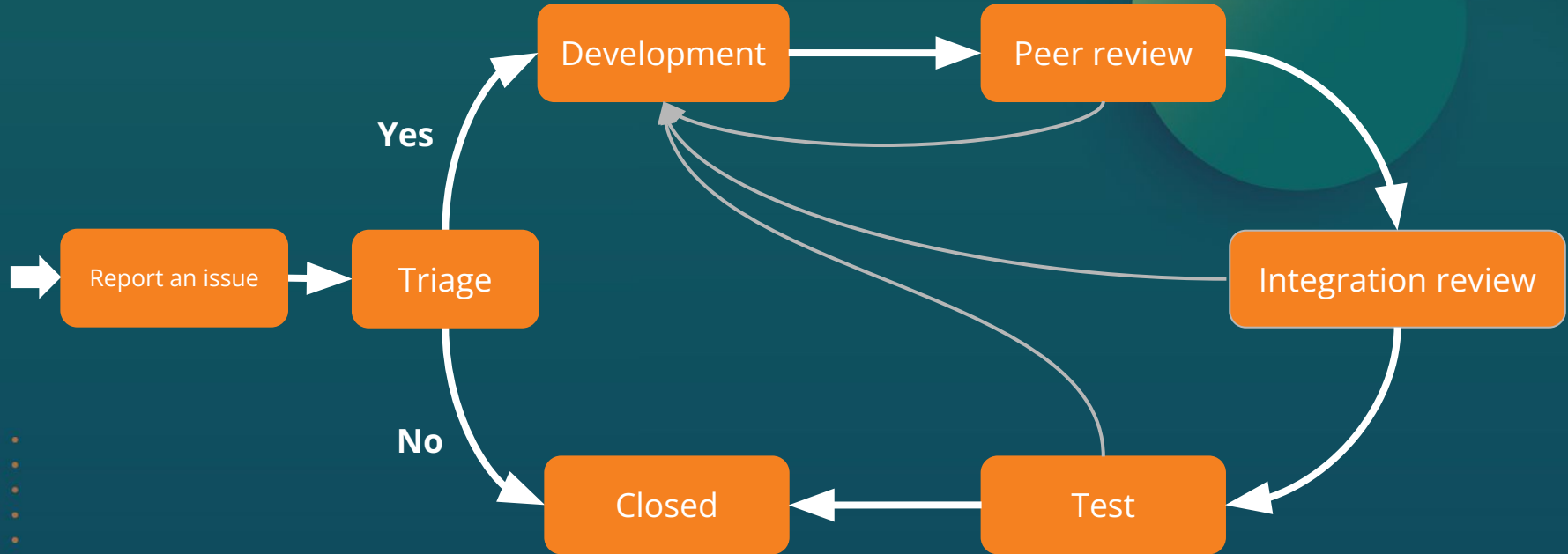#MootGlobal22

What is Moodle tracker?

http://tracker.moodle.org/

- Tracker is Moodle integrated patches database.
- To register a new user on Moodle tracker is easy and free.
- Any logged user can report an issue on the Tracker.
- Ensure the issue you are reporting is not duplicated. And that's it.
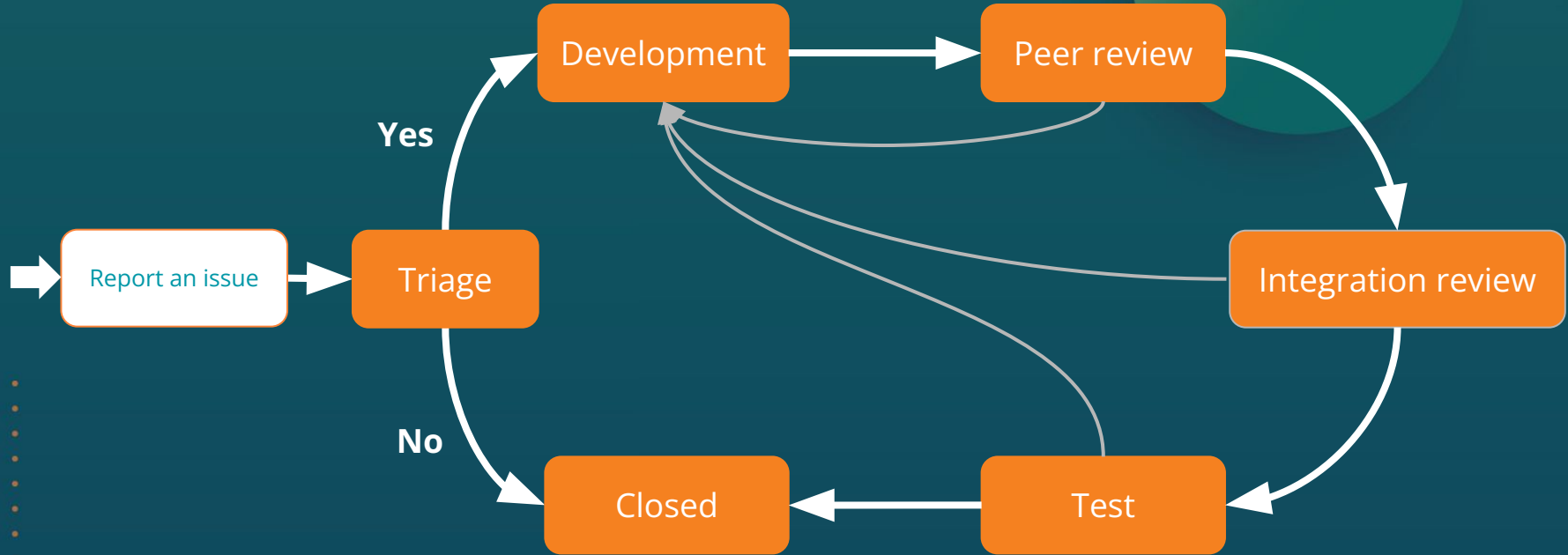- English is the common language on the tracker.

https://moodledev.io/general/development/tracker

Tracker flow

Report an issue → Triage

Yes → Development → Peer review → Integration review → Test → Closed

No → Closed

https://moodledev.io/general/development/process
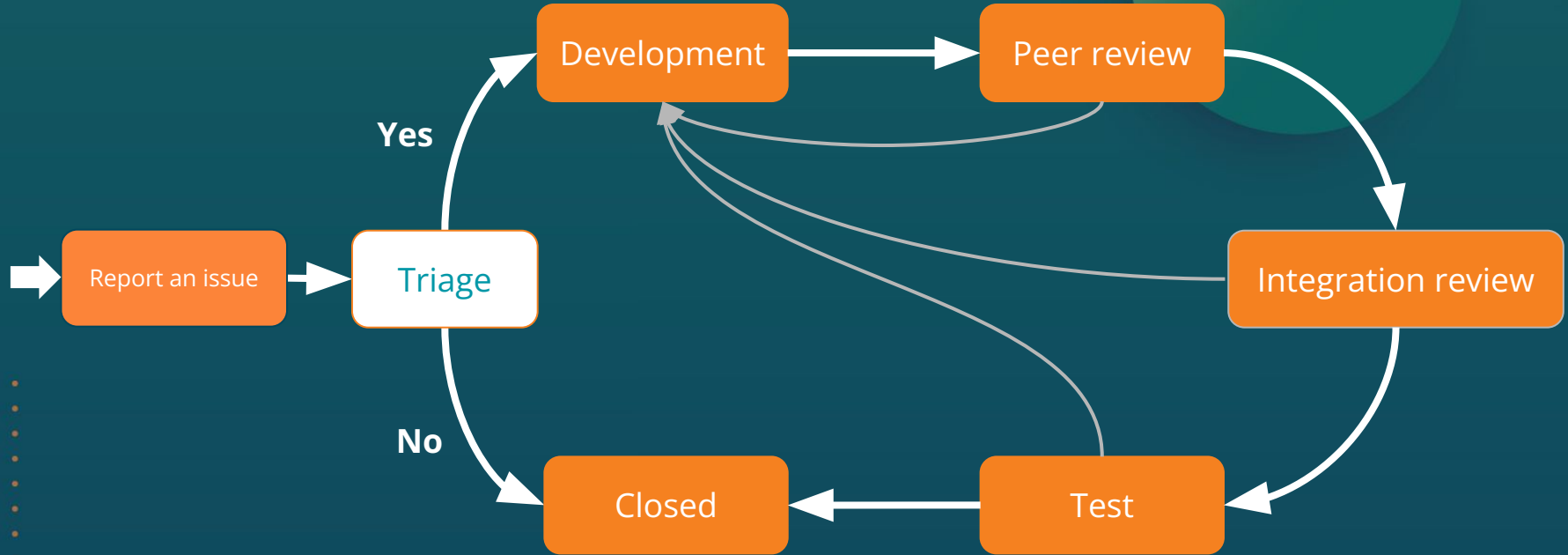
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Report an issue

Report an issue

- Issue type could be:
    - Bugs
    - Improvements
    - New features
    - Tasks

- Component: Moodle area affected by the issue.

- Title and description: be clear and add as many information as you could, such as screenshots and error messages.
    - Description.
    - Reproduction steps for bugs.
    - Don't be shy. We prefer to read long texts than try to guess what the issue is about.

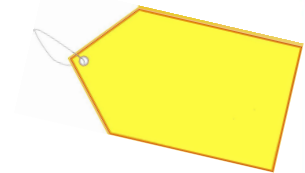https://moodledev.io/general/development/tracker/guide

Triage

Triage

- Moodle HQ developers triage the issue.
  - We confirm the issue is new and not duplicated.
  - The bug is reproduced on all stable Moodle versions.
  - We checked all the information needed has been included.
  - Issue fields are checked.
  - "Triaged" label is added to the issue.

- Most common reasons to close an issue:
  - The issue is duplicated (duplicated)
  - The bug is not replicable on supported versions (not a bug)
  - There is not enough information to reproduce the error (can't reproduce)
  - There is not enough information to triage the issue and the reporter didn't answer to the question for a long time (incomplete)

https://moodledev.io/general/development/process/triage
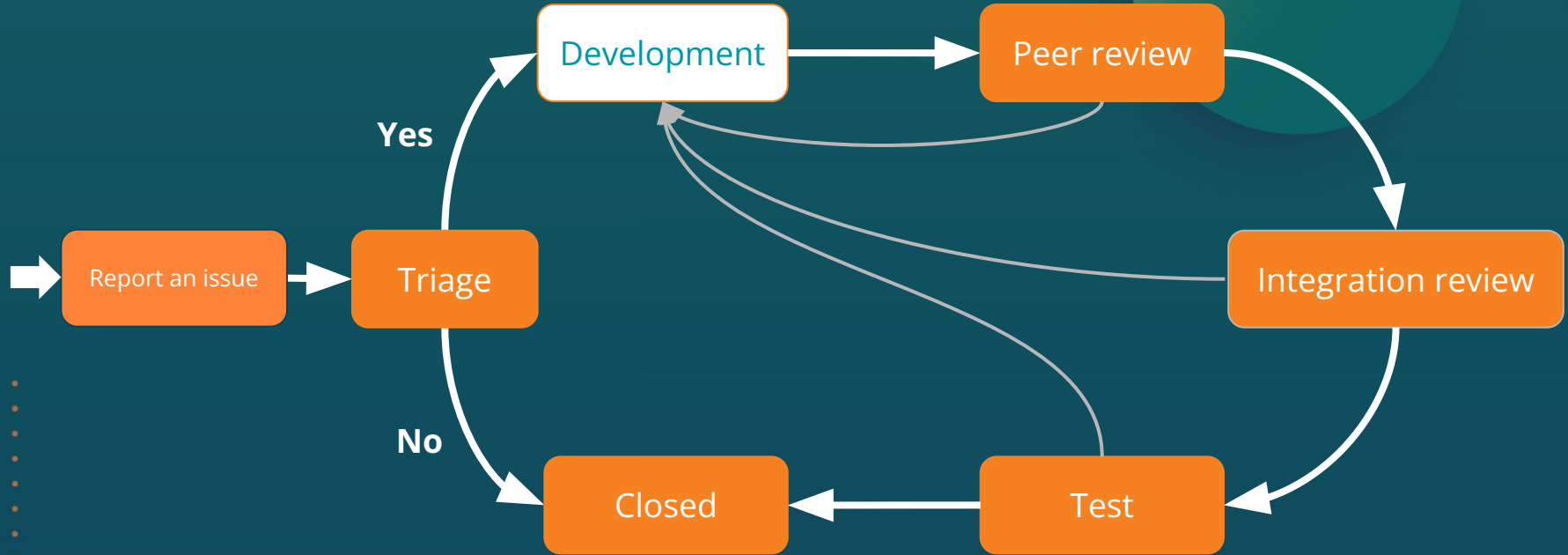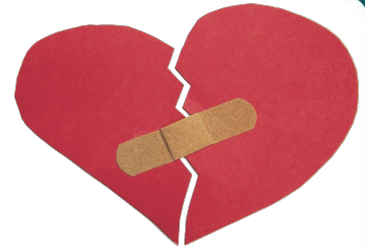
Label the issues

- **triaged**: issue is on our backlog. HQ should add this label.
- **ux_review_required**: issue require review by Moodle HQ UX designers.
- **patch**: a patch has been attached to the issue.
- **cime**: launches CiBoT automated code review.
- **qa_test_required**: needs manual testing during QA cycle.
- **docs_required**: needs user documentation changes.
- **devs_doc_required**: needs developer documentation changes.

https://moodledev.io/general/development/tracker/labels

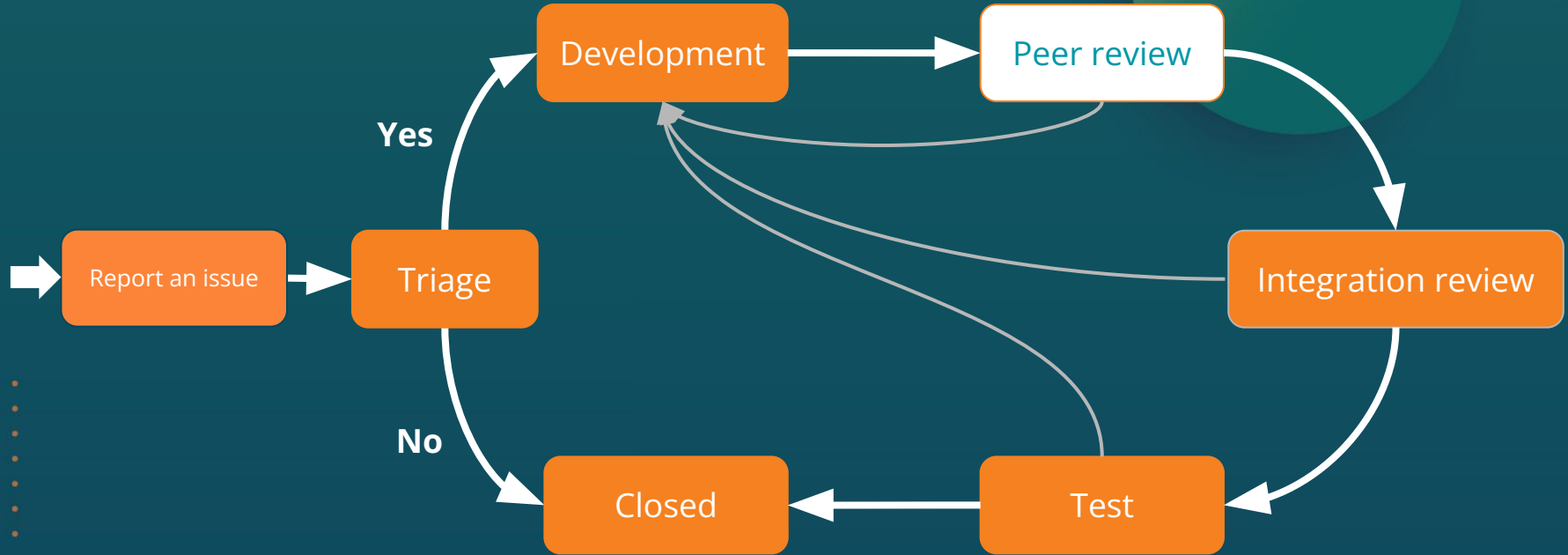# Development

Let's start fixing an issue

- Select your name on "Assignee" field.
- In case this is your first issue, you wouldn't have enough permissions for this.
  - Don't worry, you will then be given the 'jira-developer' role once your first patch makes it into Moodle and would be able to become assignee in your issues.
- In case you are the assignee of this issue: Workflow -> Start development

Development in progress

- Push your patch to Github (except for [security ssues](#))
  - Improvements and New features: master branch only
  - Bugs: All affected [stable](#) branches
- Check the [coding style](#)
  - Add "**cime**" label to launch CiBoT.
- Test instructions:
  - Try to add as many [Behat](#) and [PHPUnit](#) tests as possible
  - Write detailed manual testing instructions.
    https://moodledev.io/general/development/process/testing/guide
- Request peer review
  - In case you can not request a peer review, add "patch" label to the issue.

https://moodledev.io/general/development/process#fixing-a-bug
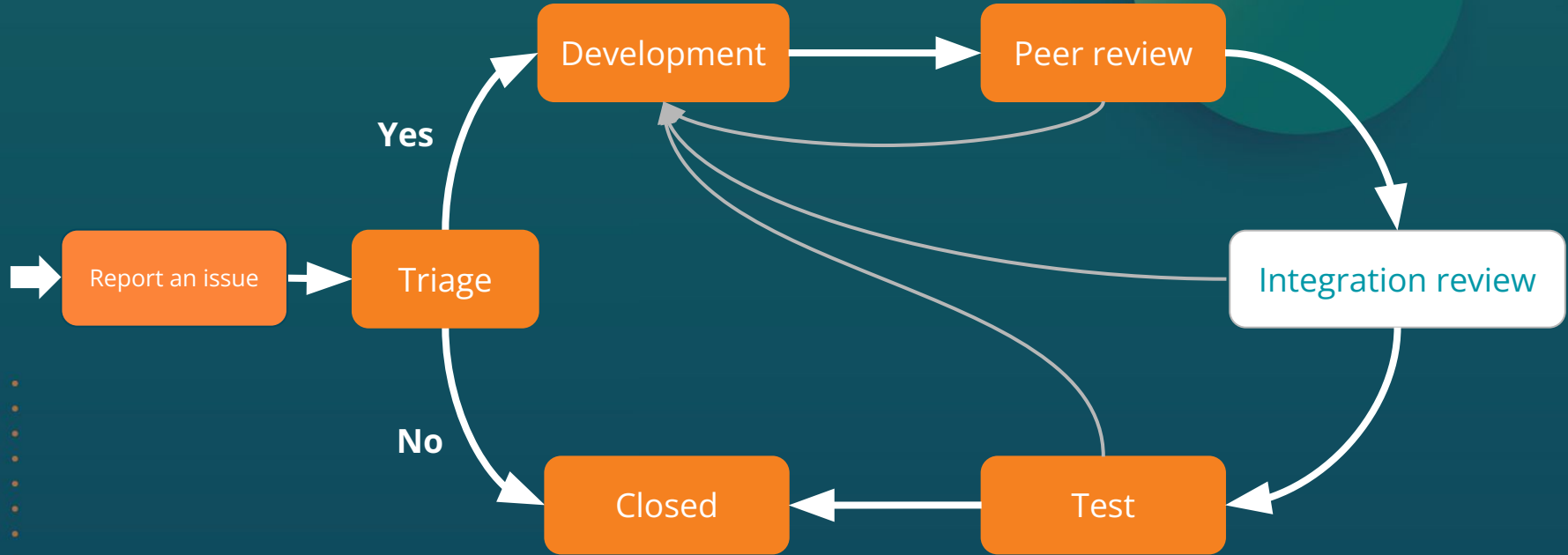
Peer review

Peer review

- Some other developer should review the issue.
- 4 eyes see better than 2.
- There is a [checklist](#) for reviews.
- Some of the factors to be taken into consideration:
  - Does the patch fixed the problem described?
  - Could the code be improved?
  - Are database queries compatible with all database supported?
  - Are we missing automated tests?

https://docs.moodle.org/dev/Peer_reviewing

Integration review

Integration review

- HQ integrators would perform a last review to ensure patch quality.
- Integration Principles:
  1. Safety.
  2. Security.
  3. Caution.
  4. Community: anything not useful for the community (or against it) won't be integrated.
  5. Automated tests.

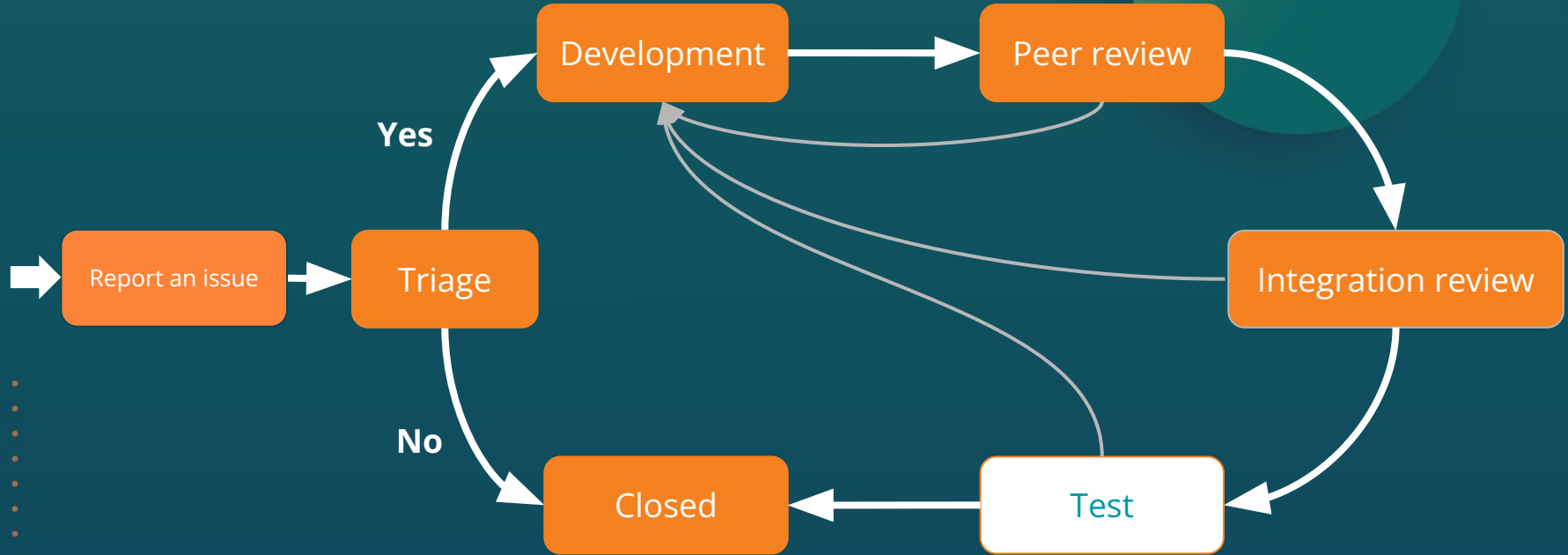https://moodledev.io/general/development/process/integration

Integration review in progress

- Rebase your code every time a new branch is published.
- Reply to integrators questions as soon as possible (< 1 day)
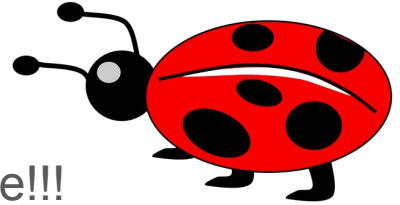 - After 7 days issue will be reopened :-(
- Integration and test cycles:

	Mon	Tue	Wed	Thu	Fri
Normal/ On-sync				12:00 (UTC+8)	
Continuous (-6 weeks to release)		12:00 (UTC+8)			12:00 (UTC+8)

https://moodledev.io/general/development/process/integration

Test

Test

- You need to test the issue in every step of the cycle!!!
  - Development. Check all functionalities and performance for different themes and set ups.
  - Peer review
  - Integration review
- Every Wednesday tests are assigned to UTPI or HQ.
  - Tests are performed following "Testing instructions".
- In case the test pass, integrated issues are merged to git://git.moodle.org/moodle.git repository once per week.
- Every week a message is post on the Integration, exposed forum with all the important information.

https://moodledev.io/general/development/process/testing/integrated-issues

Integration exposed

- Week news
- Integrated issues
- Interesting/important informacion
- Appreciation

https://moodle.org/mod/forum/view.php?id=7966

Integration round 2019-09-27: Freeze is coming…

Jun Pataleta
Friday, 27 September 2019, 9:00 AM

Cold numbers:

26 issues have been successfully integrated, 5 rejected and 15 delayed - 83.87% success. Not so bad, eh!

Notes:

- Code freeze is fast approaching (10 days and counting!). If you want your cool features to be considered for Moodle 3.8, make sure to have them peer-reviewed and sent to integration on or before 7 October 2019!
- There are 75 issues currently awaiting peer review. A lot of them could be adding cool new features that could make Moodle 3.8 more awesome! Please check them out!
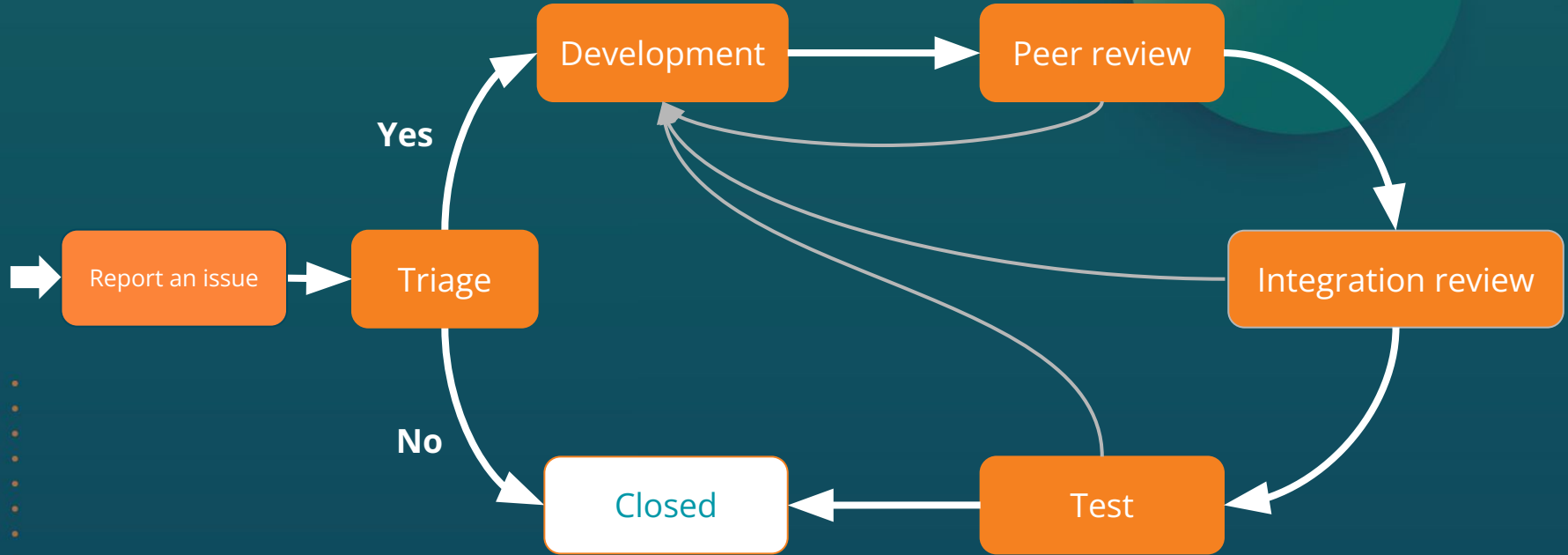
Hot topics:

- Forum UI improvements have landed!
  - MDL-66481 - Discussion list table updates
  - MDL-64821 - A new and modern forum discussion view
- MDL-66388 - Create a new button in atto to add H5P content in anywhere from hp5.com and h5p.org external URLs
- MDL-65588 - New insights for students who have not logged in recently

Warm thanks:

- To Amaia Anabitarte for livening the developer floor of Moodle's Perth HQ in the past three months. (Wow, it's been three months already?!?!) Safe travels and we hope that you'll be back again soon!
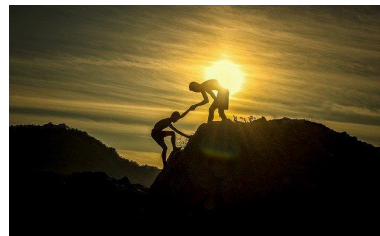
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Integrated issue

Integrated issue

booksmart

#mootglobal22

Useful tools

- **MDK - Moodle Development kit**
  - Create Moodle instances using different versions and databases
  - Develope and backport patches
  - Fill Moodle instances out with fake data
  - Run Behat and PHPUnit tests
- **moodle-docker**
  - All database and PHP version supported
  - External services such as LDAP or Solr
  - PHPUnit & Behat + Selenium
- **moodle-ci-runner**
  - Shell script for docker and test run
  - Perfect to run tests on multiple setups

Some other information

- [Backporting](#) for Improvements and New features
- [Security issues](#)
- [Deprecation](#) and [String deprecation](#)
- Requirements
  - [MDL-71747](#): Moodle 4.1
  - Due date: 2022-06-01
- [Policiy issues](#)
  - Feel free to encourage people to come and talk about the policy. The more evidence we have (from everyone in the community) the better.
  - We discuss all the evidence and try to achieve a high amount of consensus.
  - We really like to hear from the community

Thanks!

Thank all the people from the community help Moodle to become a little better every day