Moodle course hosting data logging and reporting

1. Contributors:

This document was adapted by Mark Glynn (@glynnmark) based on the original document created under creative commons. The original author of this report is Gavin Henrick from Learning Technology services

2. Introduction

The purpose of this document is to outline the data that is collected on users of Moodle.

3. Standard Data Logging in Moodle

Logs in Moodle are activity reports. Logs are available at site and course level. Moodle logs events on the site by a user recording when; who, what they were doing, where they were doing it.

For example, it would record:

On the **5 December, 17:30**, user **John Smith**, from IP Address **111.111.111.111** uploaded the assignment for **Weekly Assignment 2** in the course **History 101**.
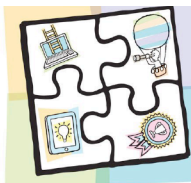
A typical Log entry logs:

- Date and time
- IP Address of user doing the task
- User doing the task (which is linked to profile data)
- User affected by the task
- Component
- Event name
- Description
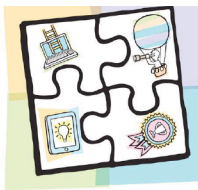- Origin

Events are filterable by Level

- Teaching level: an event or action performed by a teacher (usually) which affects the students' learning experience. This might be for instance, grading a student or adding a module to the course.
- Participating level: an event or action which could be related to a user's learning experience. This might be for instance a student posting to a forum or submitting an assignment.

4. Standard reporting

There are a number of reports that make use of this core data that are available to a teacher in the course. These core Moodle course reports for teachers will be made available during the course and after the course to course owners and facilitators.

Report	Explanation / Usage
Logs report	This report shows the actual event logging for the users in that course and is filterable by participant, date, activity, action, educational level, and can be viewed on the page or downloaded. See: https://docs.moodle.org/29/en/Logs
Live Logs report	Same as the Log report but showing a simple page with just the current activity.
Activity report	A course activity report, showing the number of views for each activity and resource (and any related blog entries), that can be viewed by managers, teachers and non-editing teachers. See: https://docs.moodle.org/29/en/Activity_report
Participation report	A participation report for a particular activity can be generated by a manager, teacher or non-editing teacher. It lists the students on the course and show what actions if any the user has performed on the specific activity. It is filterable by Activity, Days, Roles, and Actions and enables a teacher to message a selection of students. It is an actionable report used in supportive teaching interventions. See: https://docs.moodle.org/32/en/Participation_report
Activity tracking	Activity completion allows the teacher to set completion criteria in a specific activity's settings. These may be set to be completed automatically, or manually set by the student or not tracked at all. A check (tick) appears against the activity when the student meets this criterion. The criterion might be viewing, receiving a certain score or a student marking it as complete. The type of status are: · manual - not yet marked as complete · manual - enabled · manually completed · automatically completed

	· automatically failed · automatic - not completed · automatically passed · automatic - enabled See: https://docs.moodle.org/32/en/Using_Activity_completion ** This tracking can also be used to require a student to complete a task before accessing another task.
Activity completion report	Activity completion info can be viewed by managers, teachers and non-editing teachers. The report is available for the teacher to see all the students and the activities that are tracked and which are complete, not completed and failed attempts to complete.

5. Surveys & Questionnaires

Feedback forms

Moodle has a built-in feedback tool that can be used to set a pre and post course questionnaire.

A standard pre- and post-course questionnaire will be provided to the course owners who may alter this as required. This is completely customizable and can deliver anonymous results where required – including to the participants.

The pre-course questionnaire will deal with the following areas:

- Demographic Profile of the participant

- Goals and expectations of the participant

- Learning and employment background / experience of the participant

- Where the user heard about the course

The post-course questionnaire will deal with the following areas:

- Engagement level – completion, effort

- Functionality feedback

- Content feedback

- Facilitation feedback

- Assessment methodology feedback
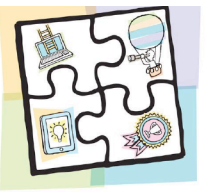
- Overall satisfaction and experience of the course

The data from these surveys can be view in report form online and can be exported from the system in xls/csv format.
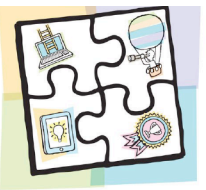
6. Prebuilt surveys

Moodle also has some built in surveys that are useful for evaluating the online learning environments using constructivist pedagogy.

They are useful for identifying trends that may be happening among the participants.

See https://docs.moodle.org/32/en/Survey_settings#Types_of_survey

| Survey	Description
COLLES	The COLLES comprises an economical 24 statements grouped into six scales, each of which helps us address a key question about the quality of the on-line learning environment: · Relevance How relevant is on-line learning to students' professional practices? · Reflection Does on-line learning stimulates students' critical reflective thinking? · Interactivity To what extent do students engage on-line in rich educative dialogue? · Tutor Support How well do tutors enable students to participate in on-line learning? · Peer Support Is sensitive and encouraging support provided on-line by fellow students? · Interpretation Do students and tutors make good sense of each other's on-line communications?

ATTLS - Attitudes to Thinking and Learning Survey	The theory of 'ways of knowing', originally from the field of gender research (Belenky et al., 1986) provides us with a survey tool to examine the quality of discourse within a collaborative environment.
	The Attitudes Towards Thinking and Learning Survey (ATTLS) is an instrument developed by Galotti et al. (1999) to measure the extent to which a person is a 'connected knower' (CK) or a 'separate knower' (SK).
	People with higher CK scores tend to find learning more enjoyable, and are often more cooperative, congenial and more willing to build on the ideas of others, while those with higher SK scores tend to take a more critical and argumentative stance to learning.
Critical incidents survey	The Critical Incidents survey is a free-response survey where students must type their answers. You can see what students have typed for each answer.
	It asks:
	· At what moment in class were you most engaged as a learner?
	· At what moment in class were you most distanced as a learner?
	· What action from anyone in the forums did you find most affirming or helpful?
	· What action from anyone in the forums did you find most puzzling or confusing?
	· What event surprised you most?

7. Terms and conditions for end users

The terms of service that users will be agreeing to by signing up will include the following information:

- will explain the extent of logging as explained earlier in this document – to say what is logged for a user (teacher/student)

- what the data will be used for

- what data will be seen and by whom
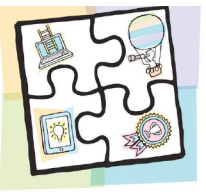
The declared use of the data will be:

- teacher and student reporting to support the delivery and improvement of learning outcomes for the student in the specific course

- research to support the future delivery and improvement of learning outcomes for the student

- running the course

- improving future versions of the course

- producing anonymized aggregated reports after the course

- improving and refining the learning management system functionality and usability

Students will see any of the following depending on the course configuration:

- Information on their own progress and results in activities, a course gradebook and reports and through certificates and badges used in the course.

- Information on their comparative performance on a specific activity to others taking that activity. This may be anonymous or naming the users in a league-table like reports or similar results listings.

- Information on the performance of the students through information made available on their profile – including badges and course completion acquired.

Some of these options are configurable by the student.

8. Creative Commons Attribution

This document was adapted by Mark Glynn (@glynnmark) based on the original document created under creative commons. The original author of this report is Gavin Henrick from Learning Technology services