A positive learning experience is the result of high-quality instruction, excellence in course design, and engagement with other students within a learning community. But too often, instructors don’t find out that students are disengaged or struggling with course materials until it’s too late to make a difference. They are unclear about what works and what doesn’t, and have no way to assess the strength of online social networks created through their classes. Conventional LMS reports may provide information about online student activities, but they require significant analysis and interpretation to yield valuable insights, so they’re rarely acted upon. **X-Ray Learning Analytics** provides deep insight into learner behaviors and identifies trends that affect achievement within Moodle. At the institutional level, X-Ray analyzes cross-course results to uncover trends.

**Identify Students at risk**  
X-Ray Learning Analytics analyzes course activity data and grades to help instructors identify struggling learners and take action to improve their performance.
**Visualizations**

**Risk Status**
- Inactive students
- Student list by risk metric
- Total risk profile
- Risk history

**Activity**
- Student list by activity metric
- Course activity by date
- Activity by time of day
- Activity over last two weeks by week day
- Activity over last two weeks
- Relative activity compared to other students in class
- Relative activity compared to self
- Pie chart of first time access distribution

**Gradebook**
- Student list by grade
- Distribution of grades
- Summary of graded items
- Distribution of Scores
- Automatic discussion forum grading versus course grade
- Comparison of scores

**Discussions**
- Student list by participation metric
- Student list by grade recommendation
- Forum activity by week
- Most used words
- Weekly average word count per post
- Interaction analysis (with instructor)
- Interaction analysis with word count (with instructor)
- Interaction analysis with original contributions (with instructor)
- Interaction analysis with critical thought (with instructor)
- Word overlap between posts (with and without instructor)
- Distribution of recommended grades

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**Optimize assessments**

X-Ray Learning Analytics helps instructors understand relationships between individual graded items and course grades. Instructors can quickly identify effective assessments and those that might need revision.

<table>
<thead>
<tr>
<th>Item name</th>
<th>Category</th>
<th>Submissions graded</th>
<th>Average score</th>
<th>Relationship with course grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise 1</td>
<td>Quiz</td>
<td>12</td>
<td>55.8%</td>
<td>89.9%</td>
</tr>
<tr>
<td>Assessment 1</td>
<td>Other</td>
<td>12</td>
<td>52.5%</td>
<td>89.3%</td>
</tr>
<tr>
<td>Forums 1</td>
<td>Forum</td>
<td>12</td>
<td>47.5%</td>
<td>96.1%</td>
</tr>
<tr>
<td>Assignments 1</td>
<td>Assignment</td>
<td>12</td>
<td>60.8%</td>
<td>94.7%</td>
</tr>
</tbody>
</table>

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**Increase engagement**

X-Ray Learning Analytics visualizes trends in activity at the individual and course levels to help instructors see how students are interacting and create activities to keep them engaged. X-Ray Learning Analytics offers linguistic analysis and visualization to help instructors understand the individual learners’ discussion forum activity as well as the critical thinking and originality of contributions.

For more information, visit blackboard.com/analytics