Can Learning Analytics Contribute to Pedagogic Enhancement

Stephen Clarke
International Solutions Engineering Manager
Blackboard
The Importance of Quality

“A quality education has the power to transform societies in a single generation, provide children with the protection they need from the hazards of poverty, labour exploitation and disease, and given them the knowledge, skills and confidence to reach their full potential.”

Audrey Hepburn
Quality is about how well learning is being facilitated, not solely final achievement.

“YELLIS uses its own test, taken by students in year 10 or year 11, as a baseline from which to calculate value added.”

Robert Coe (2007) Report for the ONS
CEM Centre Durham
http://www.cem.org
Learning Analytics and Institutional Quality

The SoLAR Report presented

“The imperative for developing a national learning analytics policy and strategy that evaluates current international practice and proposes key enabling suggestions to guide education executives and government officials in future decision making.”
Learning Analytics and Institutional Quality

Well used Learning Analytics can:
- Drive Organizational Improvement
- Open Substantial Organizational Opportunities
What are the Opportunities?

### NINE OPPORTUNITY AREAS

<table>
<thead>
<tr>
<th>AREA 1</th>
<th>Supporting lesson planning, instruction, and assessment</th>
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</thead>
<tbody>
<tr>
<td>AREA 2</td>
<td>Creating Learning maps to track education progress</td>
</tr>
<tr>
<td>AREA 3</td>
<td>Viewing student profiles and history, and managing their transitions</td>
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<tr>
<td>AREA 4</td>
<td>Course, career and college planning</td>
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<tr>
<td>AREA 5</td>
<td>Learning intervention flagging, action guidance, and measurement</td>
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<tr>
<td>AREA 6</td>
<td>Training, professional development, and networking</td>
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<tr>
<td>AREA 7</td>
<td>Communication and collaboration with education stakeholders</td>
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<tr>
<td>AREA 8</td>
<td>Technology selection, management, and usage</td>
</tr>
<tr>
<td>AREA 9</td>
<td>Budgeting, human resources, and performance management</td>
</tr>
</tbody>
</table>

Pea, Roy; Jacks, David (2014) A Report on Building the Field of Learning Analytics for Personalized Learning at Scale

Understanding Learning Analytics

Who said?

“The beginning of wisdom is in the definition of terms.”

Socrates
What Is Learning Analytics?

“Learning analytics is the collection and analysis of data generated during the learning process in order to improve the quality of both learning and teaching.”

Siemens, George; Dawson, Shane; Lynch, Grace (2013) Policy and Strategy for Systems-Level Deployment of Learning Analytics
Society for Learning Analytics Research
http://www.solaresearch.org
Understanding Learning Analytics

Learning Analytics can do many things at many levels.

One of the key capabilities is the ability to compare activity with success.

This is valuable to learners, tutors, academic leaders and external stakeholders.
Comparing Activity with Success
Comparing Activity with Success

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<th>Folder</th>
<th>Hits</th>
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</tbody>
</table>

159 total accesses.
Comparing Activity with Success
Systematic and Systemic Use of Learning Analytics

For a learner and a tutor learning analytics data is invaluable.

Can learning analytics become equally valuable for organizational quality and improvement?
Institutional Review
Institutional Review
A Portfolio of Evidence

Learning Analytics

- Student Activity
- Student Results
- Sample Work
- Student Views
- Staff Analysis

- Evidence Portfolio

Stakeholders

- Students
- Tutors
- Academic Leaders
- External Reviewers
- Accrediting Bodies
Conclusions

- Innovation Needs Technology

“a useful teaching tool in nineteenth-century England, was transformed into a teaching necessity in the decades following 1870, when the Education Acts made school free and mandatory for all children. The resulting huge population of schoolchildren inspired the development of teaching techniques appropriate for large-group learning. Many of these techniques relied on the blackboard as a reusable demonstration space visible to the entire class at once, unlike a book or slate.”

Conclusions

- Innovation Needs Technology

“I’m not a fan of technology. I’m a fan of pedagogy, of understanding how people learn and the most effective learning methods. But technology enables some exciting changes.”

Donald A Norman
Design Lab
University of California
Conclusions

- Innovation Needs Technology
- Correlate Multiple Factors
- Dynamic Analysis
- Ability to Show Trends Over Time
References


Questions

- Stephen.Clarke@Blackboard.com
- Chris.Eske@Blackboard.com