LALA: Building Capacity to Use Learning Analytics to Improve Higher Education in Latin American

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Web Page

https://www.lalapроject.org
Motivation

• Latin American HEIs should take advantage of data to take informed decisions to improve education

• In the LALA project, we help to use learning analytics solutions to 8 different Latin American higher education institutions

• Different tools for each institution. Same tool with different indicators, dashboards, etc.
Objective

- Initial date: October 2017
- Final date: April 2021
- To improve the quality, efficiency and relevance of Higher Education in Latin America, developing local capacity to create, adapt, implement and adopt Learning analytics tools to improve the academic decision making process
LALA framework: General overview

LALA Framework: Identification of user needs

• Students’ and teachers’ focus groups and surveys, experts’ opinions, and managers interviews. Quantitative and qualitative analysis were conducted to extract these needs

• A total of 32 managers, 364 teachers and 1,884 students participated in this phase

• Some conclusions such as desired objectives, preferred tools, main concerns and challenges.
## Selected tools for each institution

<table>
<thead>
<tr>
<th>University / Tool</th>
<th>NMP: Counselling for courses</th>
<th>Counselling for degrees</th>
<th>Dropout for courses</th>
<th>Dropout for degrees</th>
<th>OnTask</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUC</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESPOL</td>
<td></td>
<td>X</td>
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<td>X</td>
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<tr>
<td>UCuenca</td>
<td></td>
<td>X</td>
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<td>X</td>
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<tr>
<td>UACH</td>
<td></td>
<td>X</td>
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<td>X</td>
<td></td>
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<tr>
<td>UChile</td>
<td>X</td>
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<td>X</td>
<td></td>
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<tr>
<td>UPS</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>UPernambuco</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>I. de Zitacauro</td>
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<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Adapted and Adopted Tools (I)

• Tools adapted, adopted or inspired from tools developed in Europe,
  • A counselling tool at KU Leuven,
  • A dropout prediction tool at Universidad Carlos III de Madrid,
  • OnTask tool in which University of Edinburgh has been involved

Adapted and Adopted Tools (II)

• NMP (developed at PUC)

Adapted and Adopted Tools (III)

• Dropout for courses in MOOCs
Adapted and Adopted Tools (IV)

• Counselling for degrees (developed at ESPOL, UCuenca, UACh and UPS)
Adapted and Adopted Tools (V)

- Dropout for degrees: (developed at ESPOL, UCuenca, UACH and UPS)
Adapted and Adopted Tools (VI)

- **OnTask**

LALA pilots (I): process

Preparation
- Pilot plan & base line

Agreement
- number of agreements & characteristics

Training
- number of participants & characteristics
- evaluation of training process

Use & Accompaniment
- qualitative and quantitative indicators of tool use.

Evaluation & Improvement
- Summary of good practices using tools, impact (EFLA)
- improvements & lessons learned

LALA Project
Building Capacity to Use Learning Analytics to Improve Higher Education in Latin America
# LALA pilots (II): Total users

<table>
<thead>
<tr>
<th>University /Number of stakeholders</th>
<th>Number of students</th>
<th>Number of teachers / counsellors</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUC</td>
<td>1.294</td>
<td>30</td>
</tr>
<tr>
<td>ESPOL</td>
<td>9.485</td>
<td>641</td>
</tr>
<tr>
<td>UCuenca</td>
<td>1.873</td>
<td>74</td>
</tr>
<tr>
<td>UACH</td>
<td>5.000</td>
<td>47</td>
</tr>
<tr>
<td>Universidad de Chile</td>
<td>1.252</td>
<td>4</td>
</tr>
<tr>
<td>UPS (Universidad Politécnica Salesiana)</td>
<td>4.652</td>
<td>119</td>
</tr>
<tr>
<td>Universidad de Pernambuco</td>
<td>112</td>
<td>3</td>
</tr>
<tr>
<td>Instituto de Zitacauro</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total numbers</strong></td>
<td><strong>&gt; 22.000</strong></td>
<td><strong>918</strong></td>
</tr>
</tbody>
</table>
LALA pilots (III)

• The level of use of the tools was good after analysing the logs

• The effectiveness of the tools was good. However, there is a difficulty to measure increase in learning since this is difficult to measure, and specially with a short period of years.

• The tools are perceived as useful.
LALA pilots (IV)

Some lessons learned

• Importance of continuous involvement of key stakeholders and availability of resources

• Importance of a multidisciplinary team

• Messages, recommendations, visualizations of the tools should be checked before the interventions.

• Involvement of users in the design of the tools

• Training is necessary. Stakeholders can make correct interpretations and take proper decisions

• Capacity of adaptation depending on the context

• Pilots as a step to adoption
LALA training

• Training
  • Internal training. Takes place inside the institutions so that users can know how to use the tools or their purpose. Takes place as part of the pilots
    • More than 300 users trained
  
  • External training. Help other institutions to adopt learning analytics, involves the LALA framework, tools and results of the pilots.
    • More than 700 stakeholders were trained
## Deliverables

All deliverables of this Project are published under the “Attribution-NonCommercial-ShareAlike 4.0 International” CC BY-NC-SA Creative Commons license.

1. LALA Framework (Click to read)
2. Design for Learning Analytics tools for LALA (Click to read)
3. Piloting LALA tools (Click to read)
4. Source code (Click to access)
5. External evaluation of the first year of the project by Abelardo Pardo (Click to read)
6. LALA Quality assurance plan (Click to read)
7. LALA Conflict resolution protocol (Click to read)
8. LALA Dissemination plan (Click to read)
9. LALA Handbook (Click to read)
10. Annexes (Click to read)

https://www.lalaproject.org/

- Compilation of all final results of the project. Enables the adoption of learning analytics in HEIs.

- Four chapters: the short version of the LALA handbook, the final version of the LALA framework, the final version of the design of the learning analytics tools, and the final version of the pilots.

- Refinement process of the chapters based on the pilots, feedback, etc.
LALA Research results

• LALA did not only generate capacity building, but also interesting opportunities of innovation and research

• More than 40 research papers have been generated related to the project
  • 8 of them in top journals indexed in the first quartile of JCR
LALA Dissemination

- Videos. Available at: https://www.youtube.com/channel/UCP_OP2491BuG0zbi6YuvMPQ
LALA Dissemination

• Presentations in conferences and other events. 46 presentations

• LALA regional workshops. A total of 5 regional workshops (2 in Europe, 1 in Latin America and 2 online due to the pandemic)

• National training days. 9 training days events have been organized

• Twitter and Facebook accounts with more than 300 followers each one.

• Bulletins with around every six months.

• Others: Bags, pen drives or ball pens
LALA Community
Conclusions

• The LALA framework helps institutions for the adoption of learning analytics: 4 dimensions: institutional, technical, ethical and communal

• Challenging process to adopt LA. Many stakeholders involved (need to encourage them), many different decisions and analysis. Different velocities depending on the context of each institution (6 months or more than 2 years)

• Commonalities and differences: selected tools, architecture, data, indicators, look and feel and functionality in dashboards, etc.
Conclusions

• Source code available
• LA tools evolve during the time
  • Continuous monitoring with stakeholders. Phases of design
  • Results from the pilots
• Pilots with potential users: > 22,000 students > 900 teachers
• Good impact, effectiveness and usefulness
• LALA handbook available: LALA framework, LALA adaptation of tool, LALA pilots
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