Challengr, a Classroom Response System for Competency Based Assessment and Real-Time Feedback with Micro-Contests

Guillaume de Moffarts[1,2]   Sébastien Combéfis[2]

[1]Université catholique de Louvain (UCLouvain)

[2]Computer Science and IT in Education ASBL (CSITEd)

October 23, 2020

[FIE 2020, Uppsala, Sweden]

Context and Motivations

- Development of a Classroom Response System (CRS)

  With instructional uses and students' assessment possibilities

- Four main goals to the proposed system

  - Increase students' motivation to learn
  - Bring interactions in classroom
  - Evaluate students in a fun and challenging way
  - Provide instructors with feedback on students' performances

The Challengr Tool (1)

- Distributed application to organise micro-contests

  Three parts: API Server, website and the Challengr application
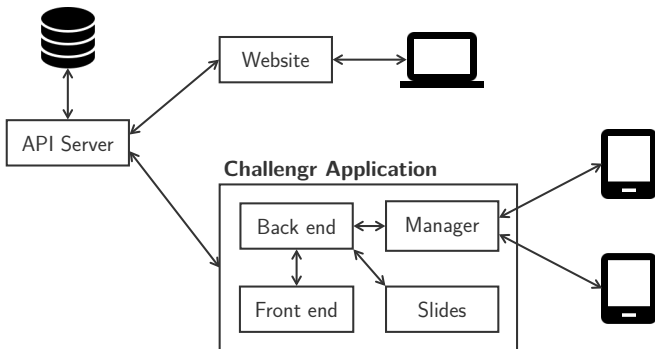
The Challengr Tool (2)

- Tool used to run a challenge with several questions

    Public online challenges or local private ones

- Statistics and feedback are collected from the students

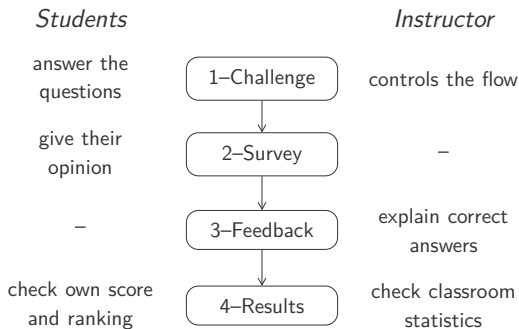   *Correct answers, questions behaviour, survey, etc.*

- Connection with other tools through an API

    External services to connect Challengr to LMS, for example

Instructional Use and Assessment

- Proposals for how the platform can be used in classrooms

  Beginning or end of course session, with proposed timeline

Students		Instructor
Students		*Instructor*
answer the questions	1–Challenge	controls the flow
give their opinion	2–Survey	–
–	3–Feedback	explain correct answers
check own score and ranking	4–Results	check classroom statistics

Conclusion and Future Work

- Challengr designed as a real-time feedback tool

  - As well for instructors as for students
  - By creating challenges to run in classrooms

- Future work includes tests of the platform

  - With students following programming course
  - To measure how well the approach is accepted and efficient
  - To further develop the platform and add new features

Credits

- Icons from https://icons8.com/icons.