Visual feedback in rubric based evaluation

Mikel Villamañe, Ainhoa Álvarez,
Mikel Larrañaga, Begoña Ferrero

University of the Basque Country UPV/EHU

LASI 2016 – 28th June 2016

Agenda

- Introduction
- Rubrics' classical visualization
- Our proposal
- Conclusions & future work

Introduction

- Intended for formative assessment, but also used for summative assessment
- Rubrics' popularity increases
  - Explicit expectations
  - "Valuable" feedback for students
- 2 rubric types
  - Holistic: overall assessment for each part of the work
  - Analytic: specific assessment for each criterion used to evaluate each part

Introduction

- Holistic rubric

Levels of performance

Dimensions (parts) for an ***oral defense***

	Excellent	Advanced	Average	Developing	Beginning
Content	Shows a full understanding of the topic	Shows a very good understanding of the topic	Shows a good understanding of the topic	Shows a good understanding of parts of the topic	Does not seem to understand the topic
Organization	Presentation has a clear, logical order throughout	Presentation order is mostly clear. The speaker may skip around once or twice	Presentation order is mostly clear. The speaker may skip around several times	The speaker skips around many times. Speech sounds choppy	Little or no clear order is evident in the presentation
Communication skills	Speaks clearly and distinctly all of the time	Speaks clearly and distinctly the majority of the time	Speaks clearly and distinctly most of the time	Speaks somewhat clearly and distinctly some of the time	Often mumbles or cannot be understood
….	…	…	…	…	…

Introduction

- Analytic rubric

Levels of performance

Dimensions (criteria) for the ***content***

	A	B	C
Suitability of the presentation for the topic	Absolute	Improvable	Unsuitable
Suitability of the presentation for the audience	Absolute	Improvable	Unsuitable
Used language	Fully appropriate	Sufficiently appropriate	Inappropriate
Scientifically accuracy of the content	Fully accurate	Sufficiently accurate	None
Argumentation	Clear, concise and logically organized	Not always clear or concise	Chaotic
Presentation is eye-catching	Yes	No, it is boring	No, it is unpleasant
Used resources	Useful and well used	Useful but badly used	Useless or distracting
....	...	...	...

Introduction

- AdESMuS
  - **Ad**aptable **E**valuation **S**ystem using **Mu**ltiple **S**ources

Introduction

- AdESMuS
  - **Ad**aptable **E**valuation **S**ystem using **Mu**ltiple **S**ources
  - Allows
    - Defining rubrics
    - Evaluating works
      - Multiple evaluators
      - Multiple tasks
      - Multiple evaluation sources
      - Different weights for tasks, dimensions, levels, etc.
  - Provides results and feedback
      - Students
      - Teachers

Rubrics' classical visualization

- Traditional visualization of an analytic rubric

Oral defense evaluation

	A	B	C
Suitability of the presentation for the topic	Absolute	Improvable	Unsuitable
Suitability of the presentation for the audience	Absolute	Improvable	Unsuitable
Used language	Fully appropriate	Sufficiently appropriate	Inappropriate
Scientifically accuracy of the content	Fully accurate	Sufficiently accurate	None
Argumentation	Clear, concise and logically organized	Not always clear or concise	Chaotic
Presentation is eye-catching	Yes	No, it is boring	No, it is unpleasant
Used resources	Useful and well used	Useful but badly used	Useless or distracting
….	…		

Grade: 6,5

Rubrics' classical visualization

- Classical visualization of an holistic rubric

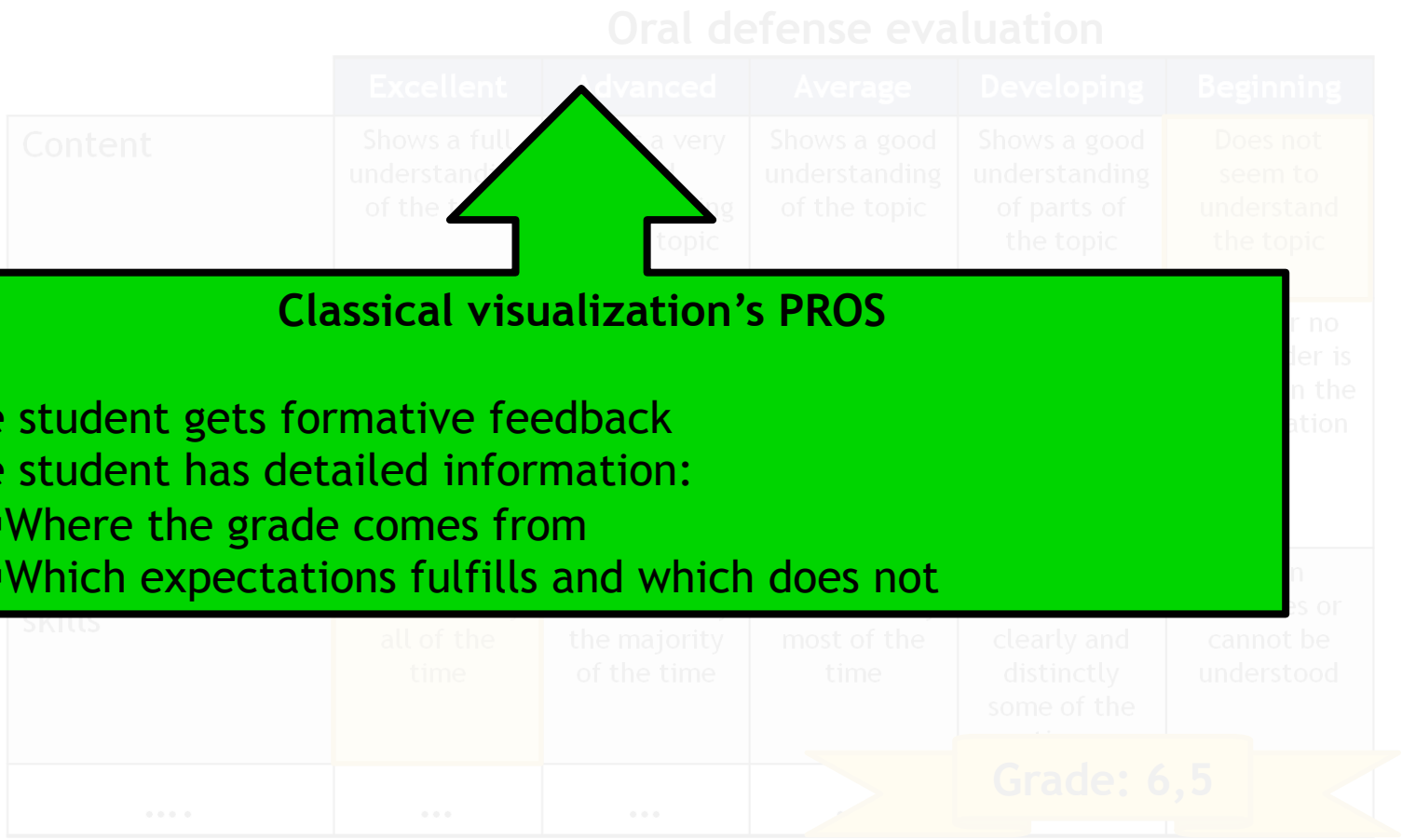
Oral defense evaluation

	Excellent	Advanced	Average	Developing	Beginning
Content	Shows a full understanding of the topic	Shows a very good understanding of the topic	Shows a good understanding of the topic	Shows a good understanding of parts of the topic	Does not seem to understand the topic
Organization	Presentation has a clear, logical order throughout	Presentation order is mostly clear. The speaker may skip around once or twice	Presentation order is mostly clear. The speaker may skip around several times	The speaker skips around many times. Speech sounds choppy	Little or no clear order is evident in the presentation
Communication skills	Speaks clearly and distinctly all of the time	Speaks clearly and distinctly the majority of the time	Speaks clearly and distinctly most of the time	Speaks somewhat clearly and distinctly some of the	Often mumbles or cannot be understood
....	...	...			

Grade: 6,5

Rubrics' classical visualization

- Classical visualization of an holistic rubric

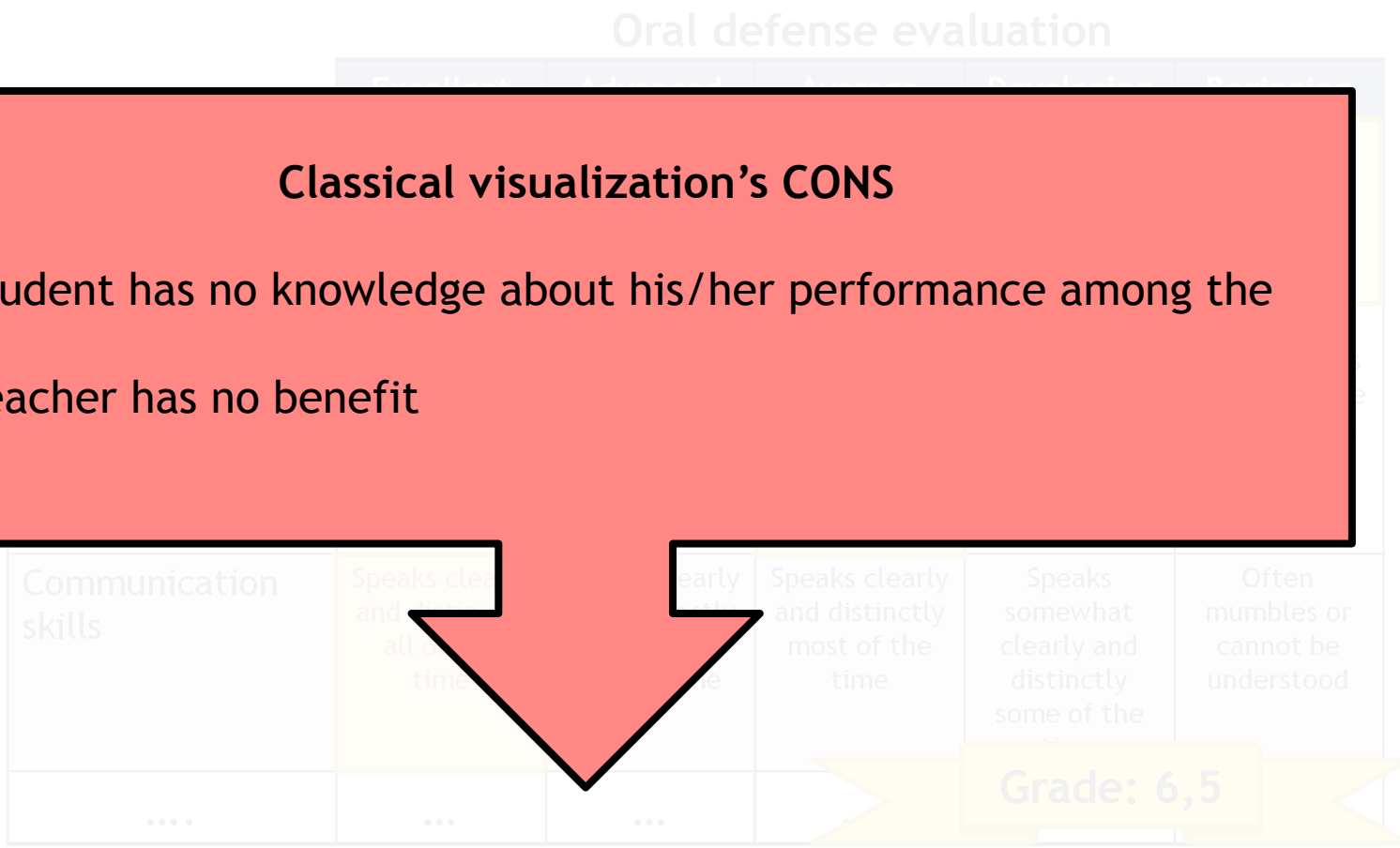


Classical visualization's PROS

- The student gets formative feedback
- The student has detailed information:
  - Where the grade comes from
  - Which expectations fulfills and which does not

Rubrics' classical visualization

- Classical visualization of an holistic rubric



Classical visualization's CONS

- The student has no knowledge about his/her performance among the group
- The teacher has no benefit

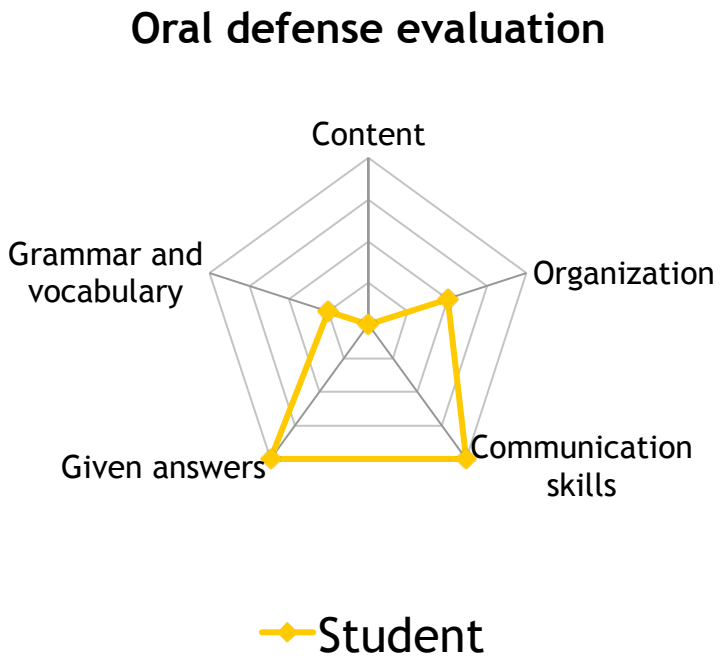
Our proposal

- Enrich visualization of rubrics using different plots

Oral defense evaluation

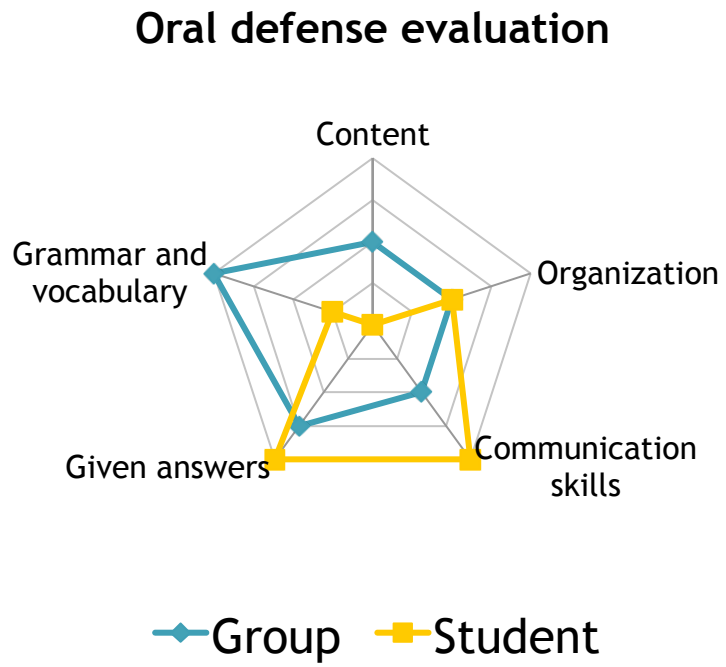
	Excellent	Advanced	Average	Developing	Beginning
Content	Shows a full understanding of the topic	Shows a very good understanding of the topic	Shows a good understanding of the topic	Shows a good understanding of parts of the topic	Does not seem to understand the topic
Organization	Presentation has a clear, logical order throughout	Presentation order is mostly clear. The speaker may skip around once or twice	Presentation order is mostly clear. The speaker may skip around several times	The speaker skips around many times. Speech sounds choppy	Little or no clear order is evident in the presentation
Communication skills	Speaks clearly and distinctly all of the time	Speaks clearly and distinctly the majority of the time	Speaks clearly and distinctly most of the time	Speaks somewhat clearly and distinctly some of the	Often mumbles or cannot be understood
....	...	...			

Grade: 6,5



Our proposal

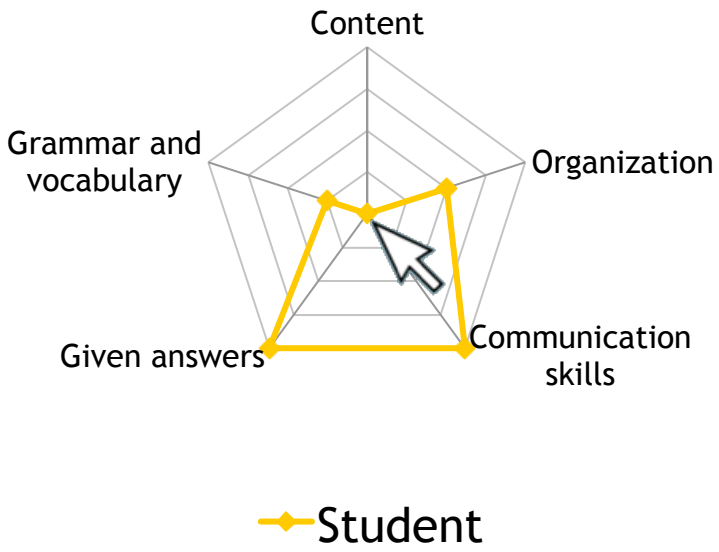
- Allowing comparison with the rest of the group



Our proposal

- Allowing navigation

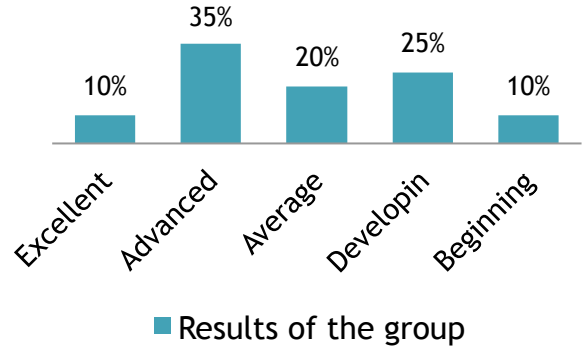
Oral defense evaluation



	Excellent	Advanced	Average	Developing	Beginning
Content	Shows a full understanding of the topic	Shows a very good understanding of the topic	Shows a good understanding of the topic	Shows a good understanding of parts of the topic	Does not seem to understand the topic

GROUP

YOU



Feedback

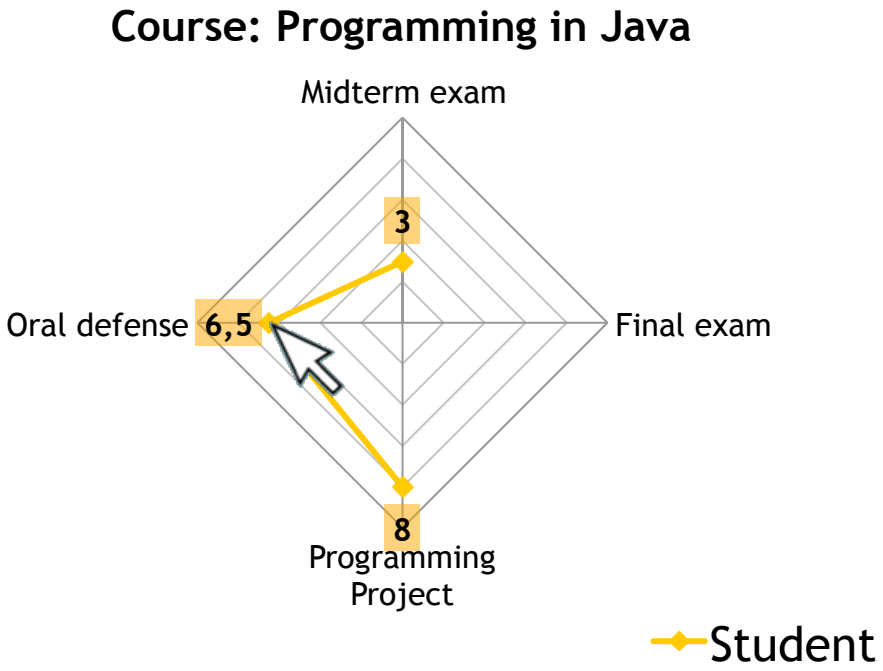
You should read the related bibliography to understand the topic and improve the content of your presentation.

Our proposal

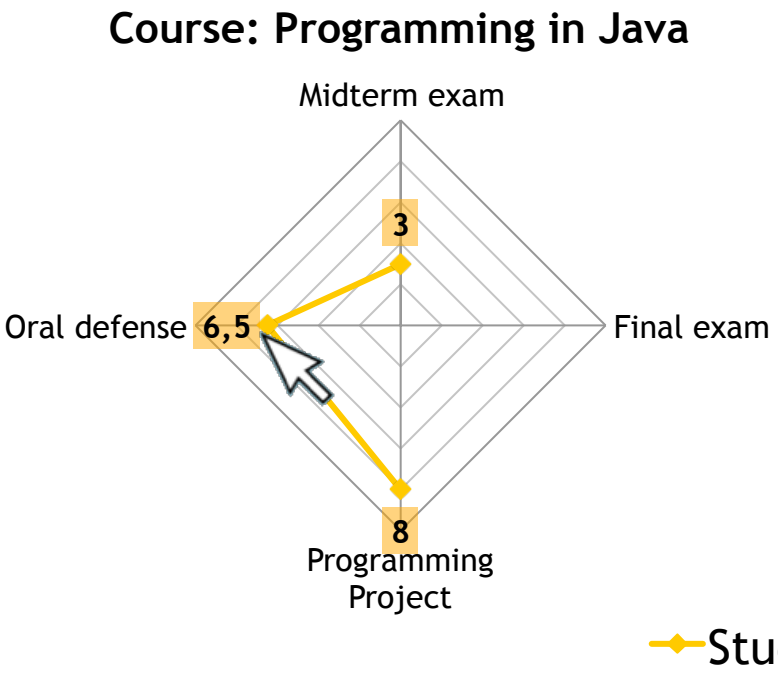
	A	B	C
Suitability of the presentation for the topic	Absolute	Improvable	Unsuitable
Suitability of the presentation for the audience	Absolute	Improvable	Unsuitable
Used language	Fully appropriate	Sufficiently appropriate	Inappropriate
Scientifically accuracy of the content	Fully accurate	Sufficiently accurate	None
Argumentation	Clear, concise and logically organized	Not always clear or concise	Chaotic
Presentation is eye-catching	Yes	No, it is boring	No, it is unpleasant
Used resources	Useful and well used	Useful but badly used	Useless or distracting
....	...	...	...

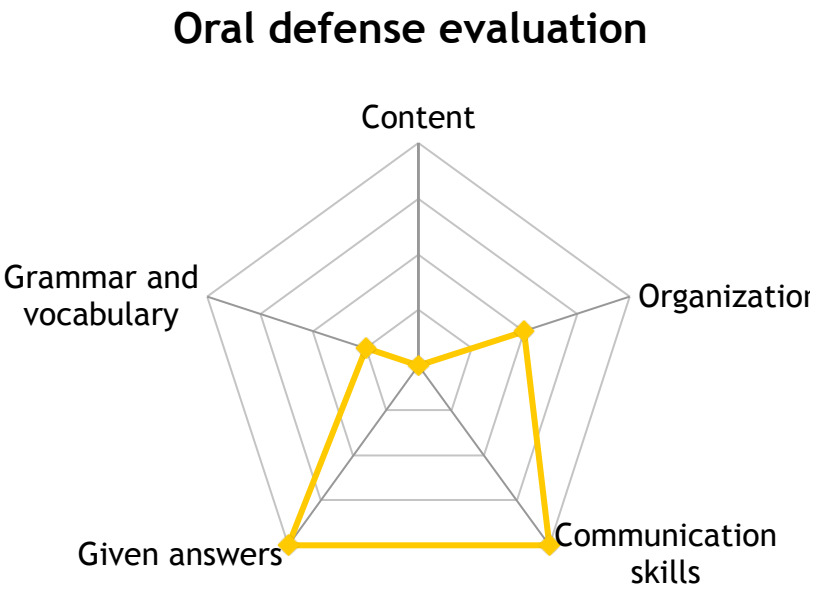
Our proposal

- Useful visualization for the whole course or different evaluable parts of a work



Our proposal



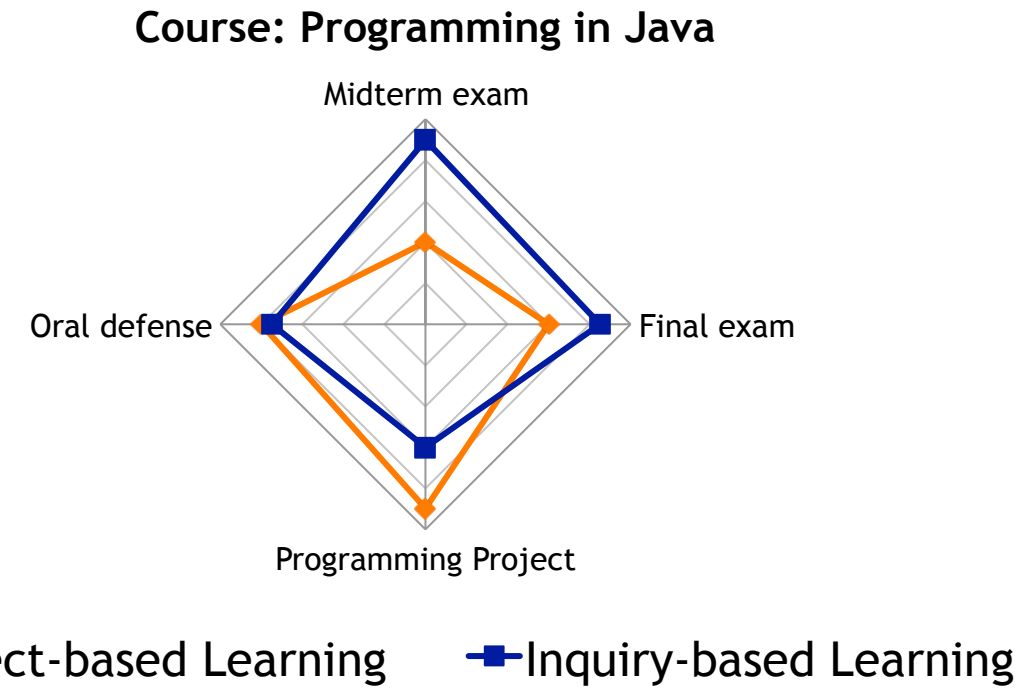


Our proposal

- Possibility (for teachers) to compare groups
- Multiple criteria to form the groups
  - Working groups
  - Teacher
  - Teaching / Learning techniques
  - Repeaters vs new students
  - ….

Our proposal

- Possibility (for teachers) to compare groups
- Multiple criteria to form the groups



Conclusions & future work

- Conclusions
  - Visualization allows enriching the feedback provided by rubrics
  - Helps teachers and students understanding the teaching and learning processes

Conclusions & future work

- Future work
  - Make available the visualization module for users
  - Analyze students' and teachers' visualization preferences
  - Evaluate the impact of different visualization techniques

Visual feedback in rubric based evaluation

THANK YOU

Contact: mikel.v@ehu.eus
http://galan.ehu.eus

eman ta zabal zazu
euskal herriko unibertsitatea
universidad del pais vasco

LASI 2016 – 28th June 2016

GALAN