

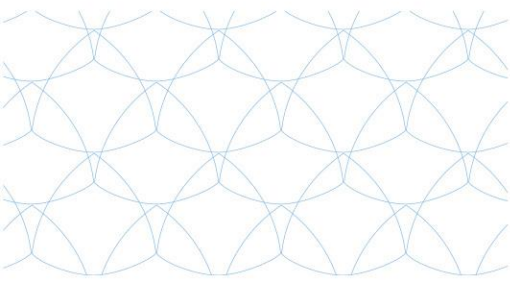
EXCELLABUST
EXCELLING LABUST IN MARINE ROBOTICS

TUTORIAL 2

Report

24 - 25 May 2016

CNR-ISSIA



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691980.



1. VENUE

Gray Hall, University of Zagreb Faculty of Electrical Engineering (UNIZG-FER)
Address: Unska 3, Zagreb, Croatia

2. SUMMARY

The tutorial followed the planned contents about modelling, identification and motion estimation of Unmanned marine Vehicles, given by Massimo Caccia from CNR-ISSIA. The first day focused on modelling, identification, filtering and motion estimation techniques, giving special emphasis on practical issues and experience. Examples of modelling and identification of ROVs and catamaran-shaped USVs were given, focusing on the design of suitable experiments able to exploit the data of standard sensors mounted onboard the vehicles. During the afternoon, basic theoretical and practical aspects about smoothers and filters have been presented, focusing on outlier rejection, noise characterization and Kalman filtering.

During the second day, the tutorial was focused on open discussion about previous experience of the participants. Guidance and control aspects were discussed too as well as the behaviour of acoustic devices in reflective environments, such as, for instance, polar regions covered by ice.

The outcomes of the tutorial were:

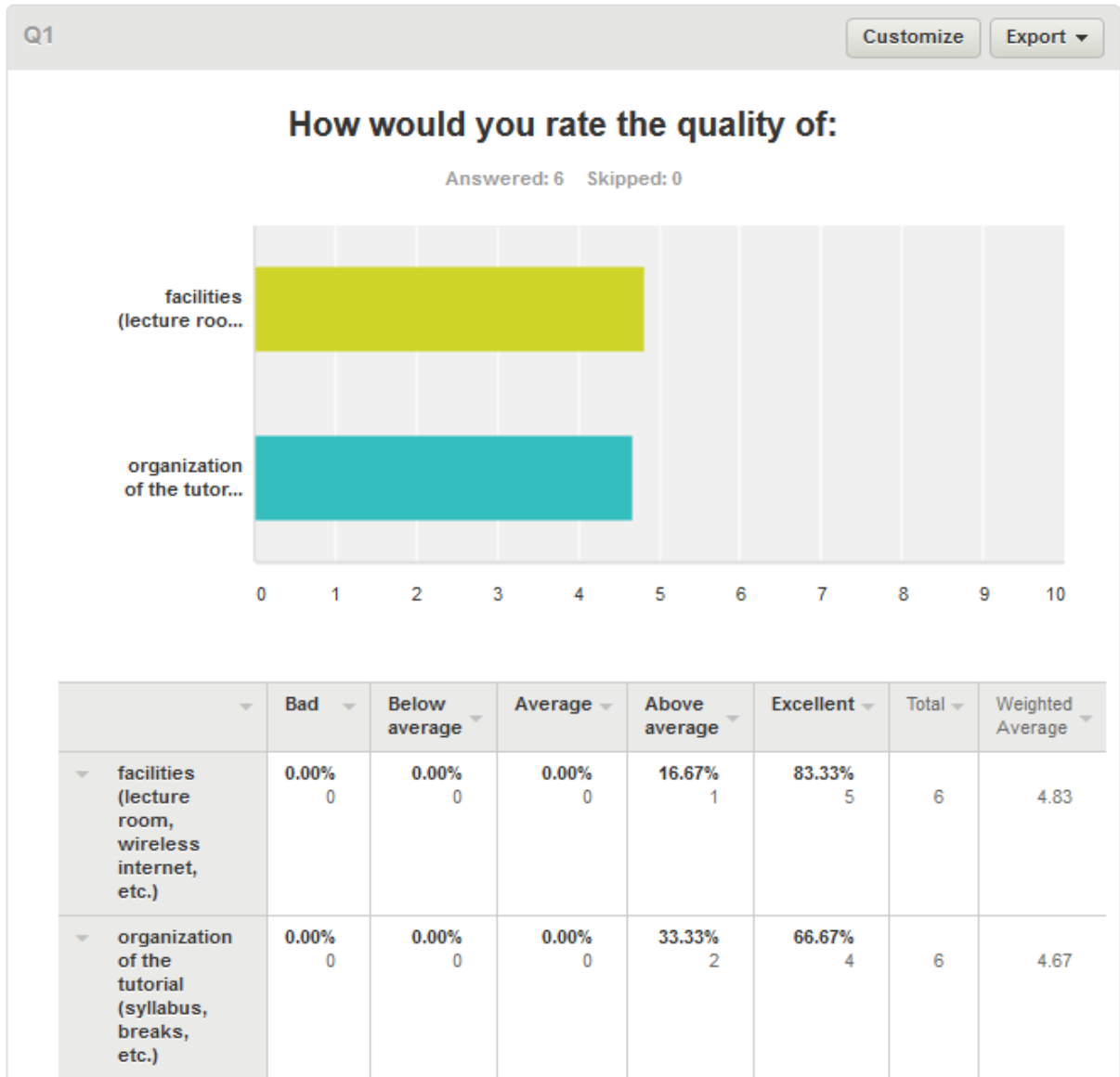
- Participants were introduced with modelling and identification of UMVs, namely open frame ROVs and catamaran-like USVs
- Participants were introduced with sensor characterisation and motion estimation of UMVs.
- Participants discussed operational experiences with the tutor who provided hints about practical implementation of theoretical methods.

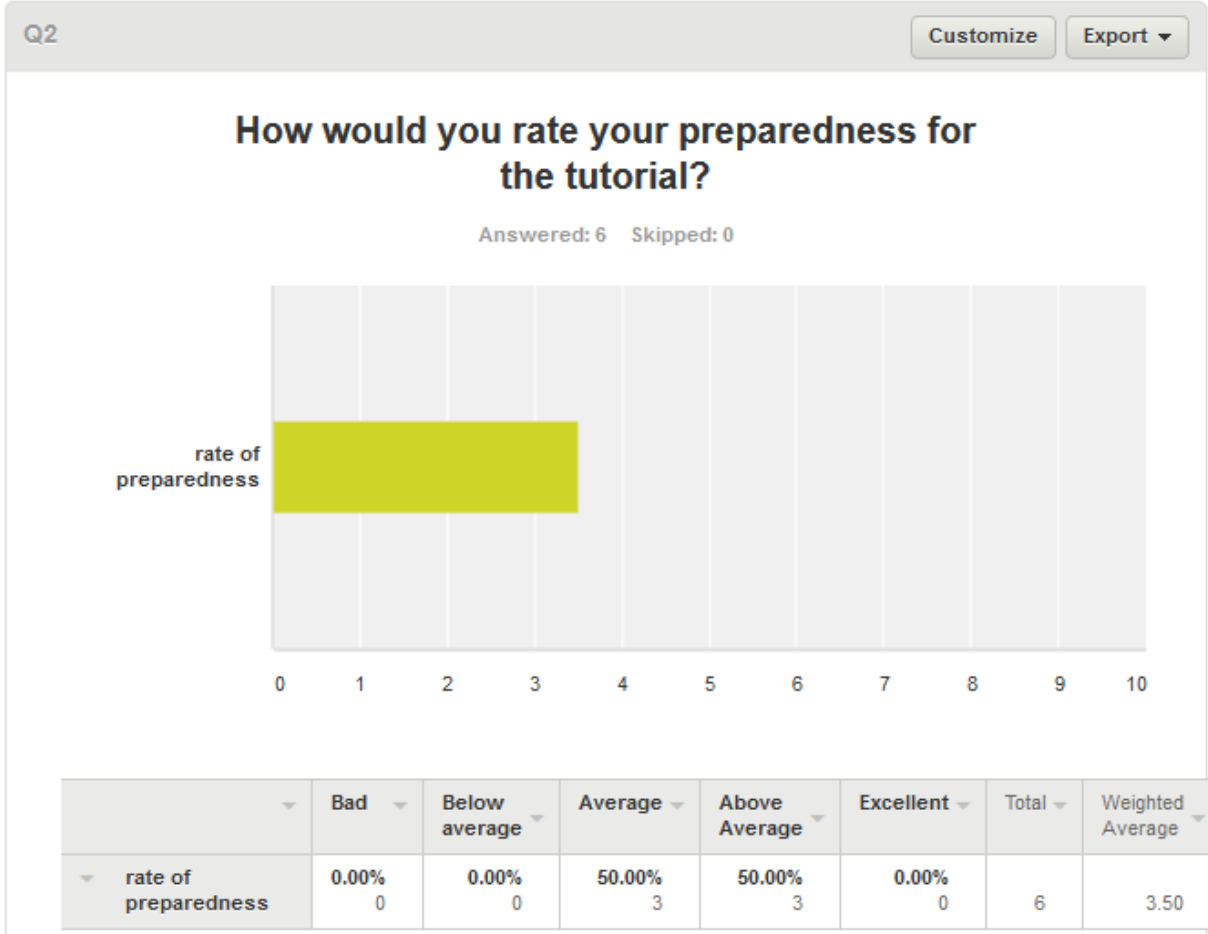
The tutorial allowed meeting many students and researchers from University of Zagreb, with which Massimo Caccia started conversations about their common research interests and potential future collaborations.

3. LIST OF PARTICIPANTS

1. Anja Babić – PhD student; anja.babic@fer.hr
 2. Dr. Vladimir Djapic – Researcher; vdjapic@gmail.com
 3. Luka Fuček – PhD student; luka.fucek@fer.hr
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 6. Filip Mandić - PhD student; filip.mandic@fer.hr
 7. Đula Nađ - PhD student; dula.nad@fer.hr
 8. Milan Stipanov - PhD student; marin.stipanov@fer.hr
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4. SURVEY RESULTS





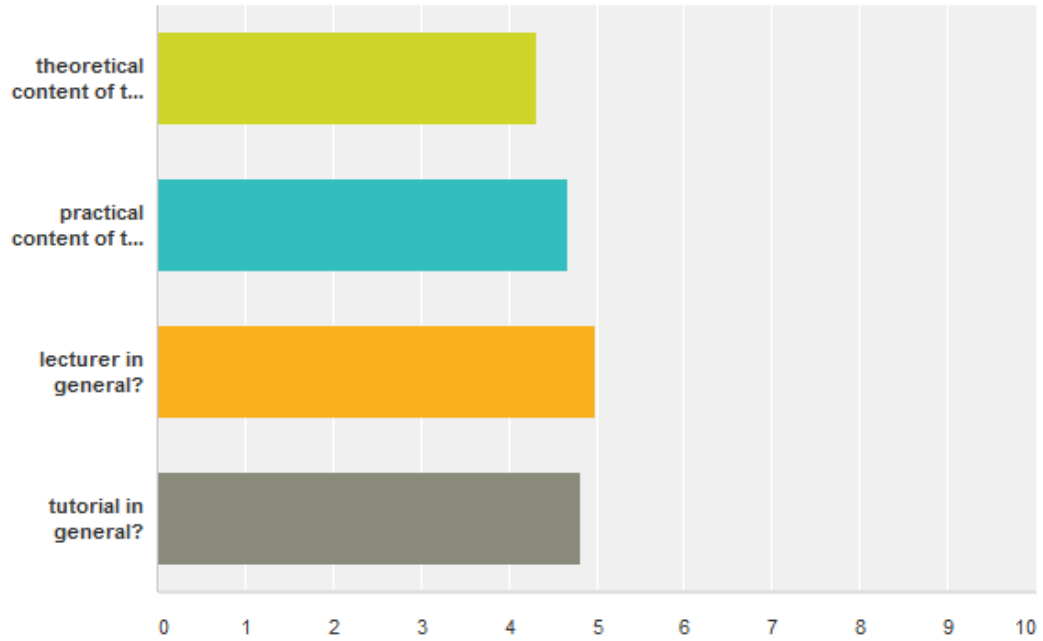
Q3

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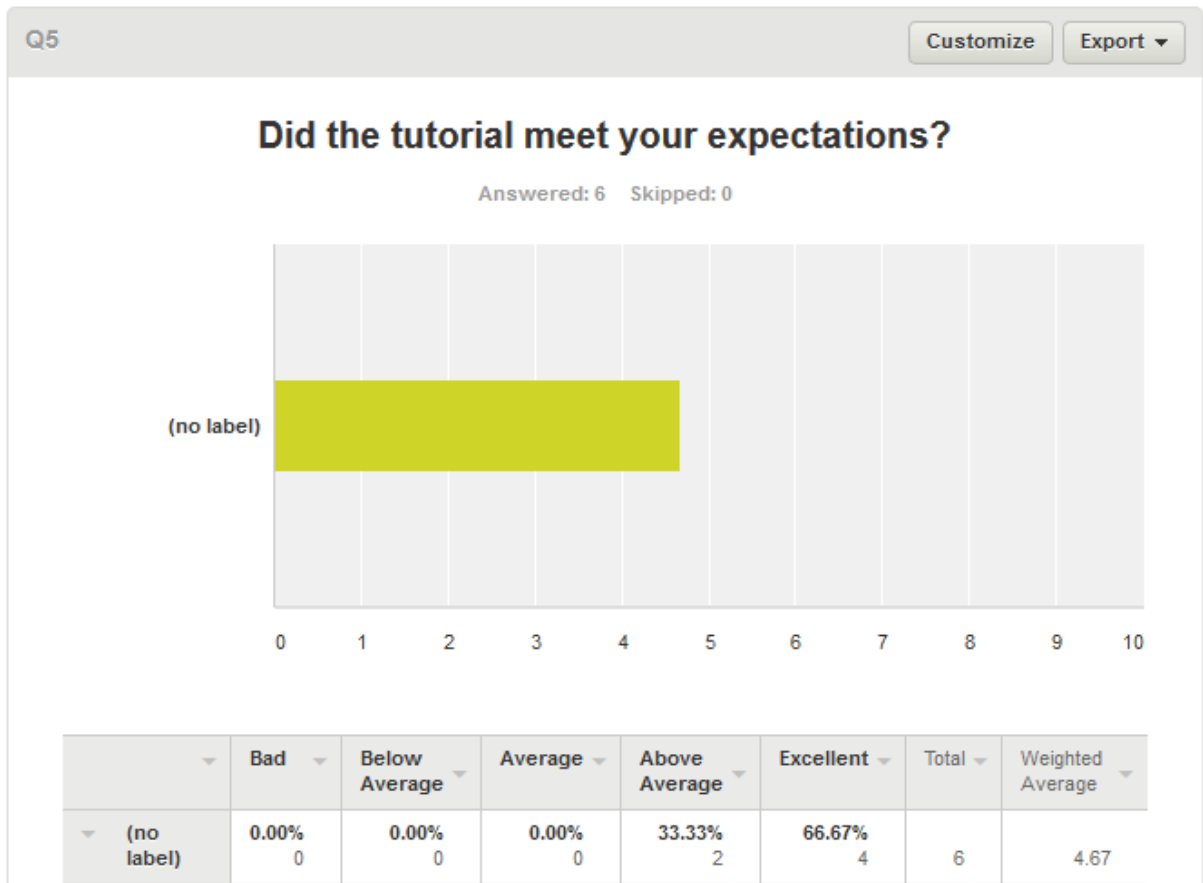
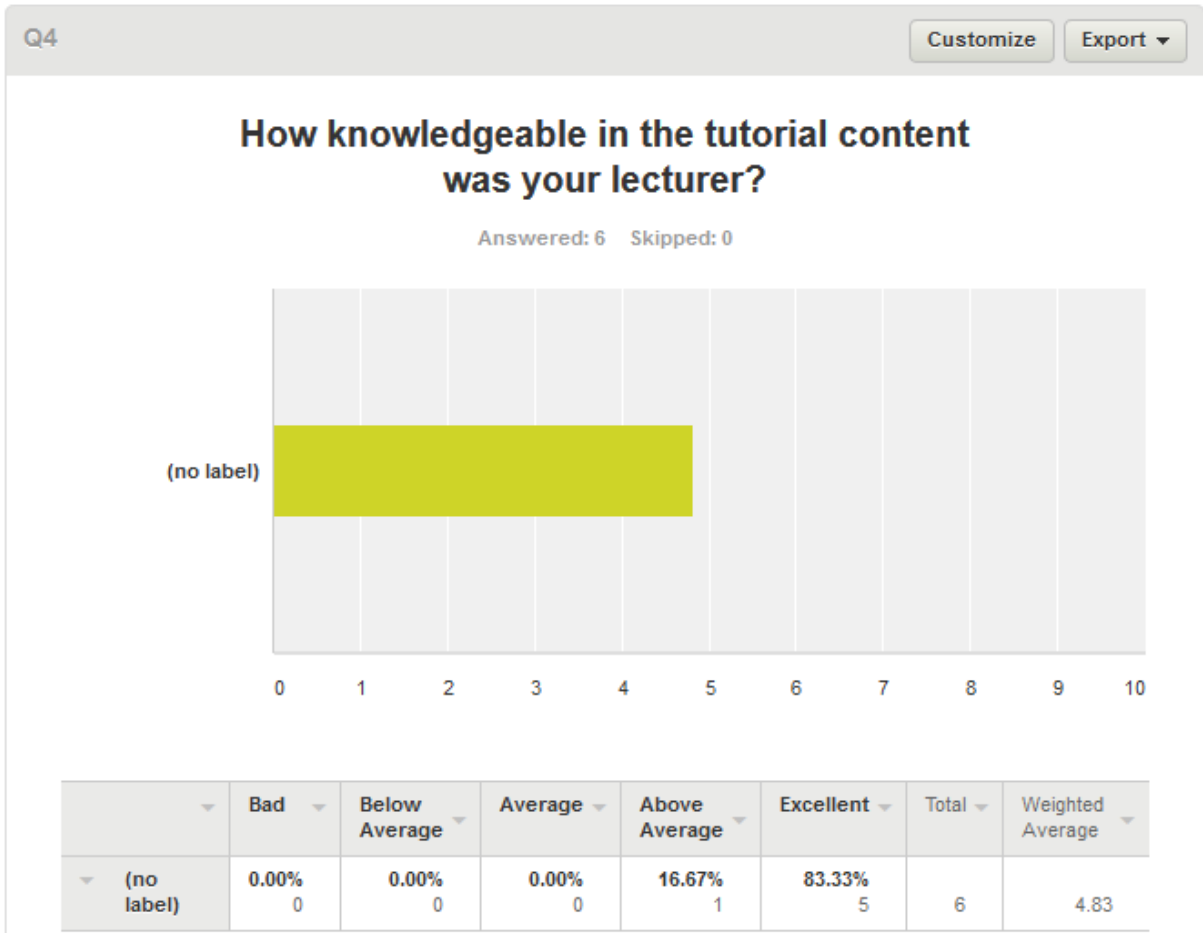
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How satisfied were you with the:

Answered: 6 Skipped: 0



	Bad	Below Average	Average	Above Average	Excellent	Total	Weighted Average
theoretical content of the tutorial?	0.00% 0	0.00% 0	0.00% 0	66.67% 4	33.33% 2	6	4.33
practical content of the tutorial?	0.00% 0	0.00% 0	0.00% 0	33.33% 2	66.67% 4	6	4.67
lecturer in general?	0.00% 0	0.00% 0	0.00% 0	0.00% 0	100.00% 6	6	5.00
tutorial in general?	0.00% 0	0.00% 0	0.00% 0	16.67% 1	83.33% 5	6	4.83





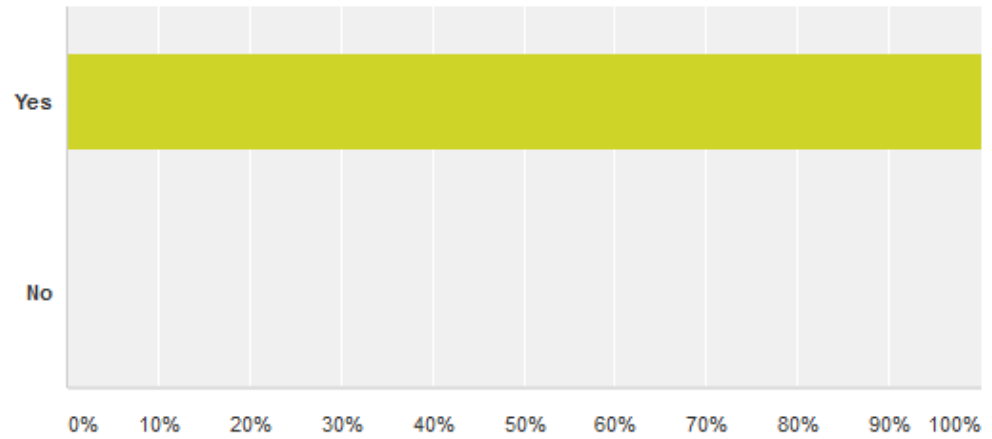
Q6

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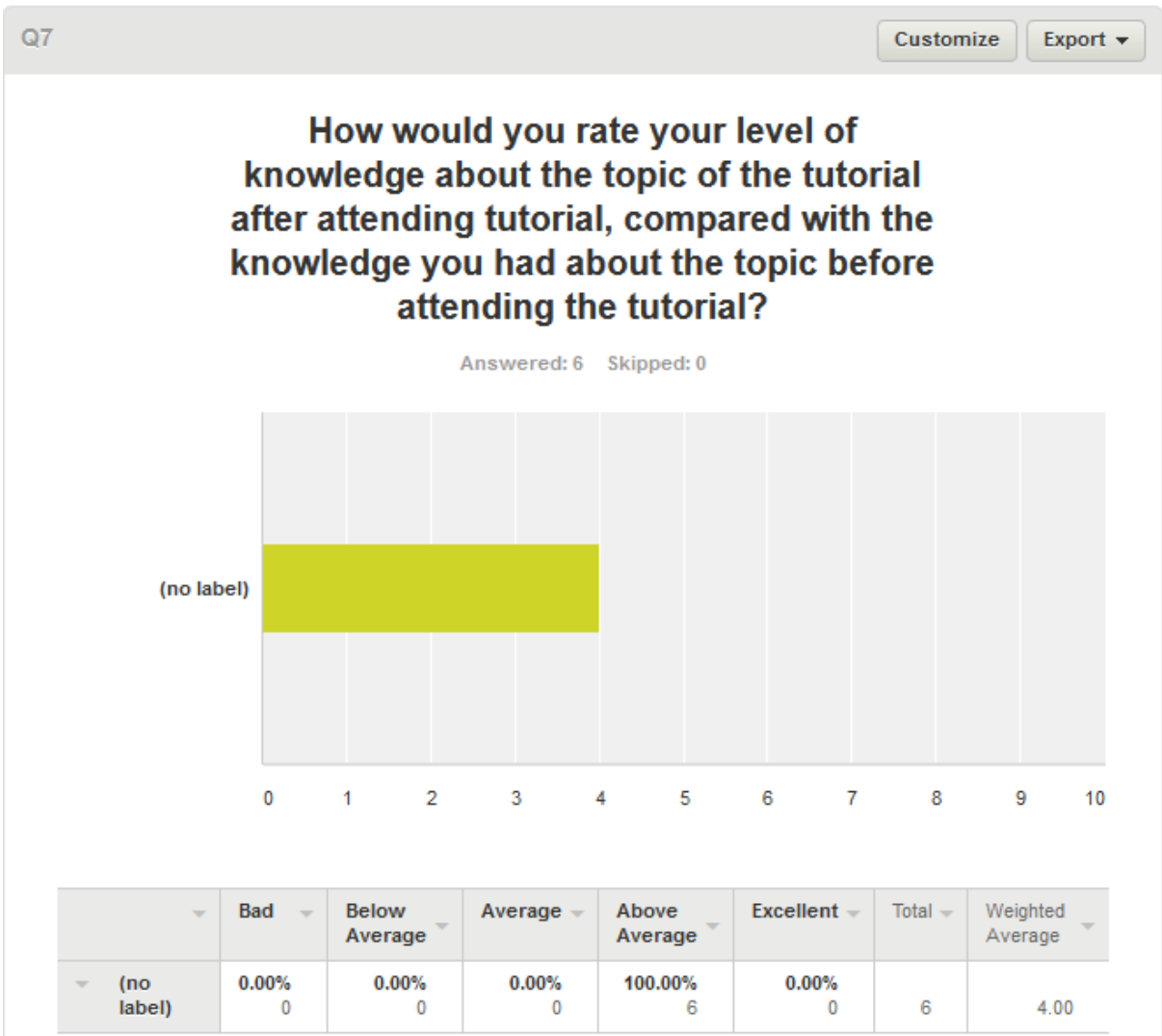
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Would you attend another tutorial organized within the scope of EXCELLABUST project?

Answered: 6 Skipped: 0



Answer Choices	Responses	
▾ Yes	100.00%	6
▾ No	0.00%	0
Total		6



Q8 Export

Which part of the tutorial did you find

Answered: 3 Skipped: 3

Answer Choices	Responses	
the MOST useful?	Responses	100.00% 3
the LEAST useful?	Responses	33.33% 1

Q9 Export ▾

Do you have any further comments/recommendation on the tutorial/lectures/organization?

Answered: 1 Skipped: 5

● Responses (1) Text Analysis My Categories

Categorize as... ▾ Filter by Category ▾ Search responses

Showing 1 response

No

6/8/2016 9:38 AM [View respondent's answers](#)

5. PHOTOS

