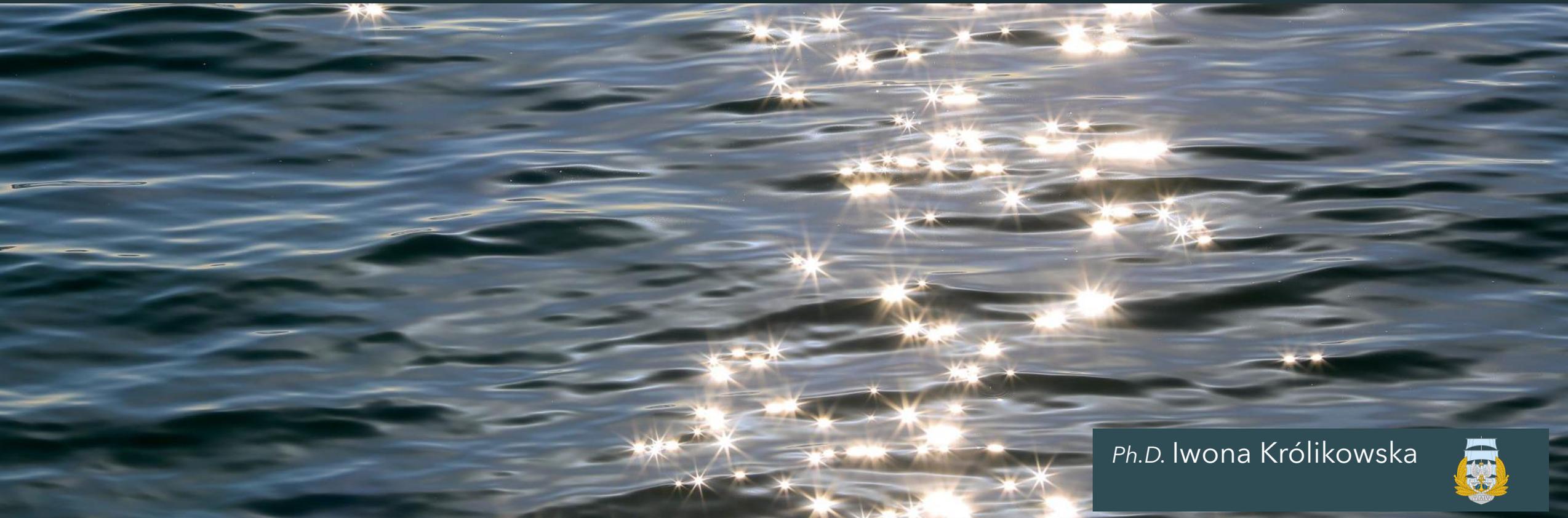


# Effectiveness of active teaching methods using marine simulators in the opinion of lecturers



Ph.D. Iwona Królikowska



# Advantages of teaching with simulators



- Ability to try many different simulations, many scenarios
- Ability to repeat exercises with error analysis
- Work with almost real simulation
- Create opportunities for students to imagine the results of the simulation
- Impart practical knowledge in an attractive way
- Students prefer this method to other, more traditional teaching methods



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# The evaluate the use of simulators in student transfer in the method of acquiring teaching methods



## Simulator advocates:

- "us the best evaluation"
- Better method than traditional ones
- Learning on modern simulators is the best way to transfer knowledge and test students' ability to handle challenges in a safe environment
- Advantage of simulators over traditional forms of teaching as learning by doing

## Simulator skeptics:

- Very effective tool however only when combined with traditional methods
- Effective tool, however, requiring prior preparation of students' content
- Effective, but after making some changes to the proposed scenarios
- In the era of video games, students do not always approach simulations in a serious way, they are less considerate treating learning as a game.



# Main difficulties in learning on simulators

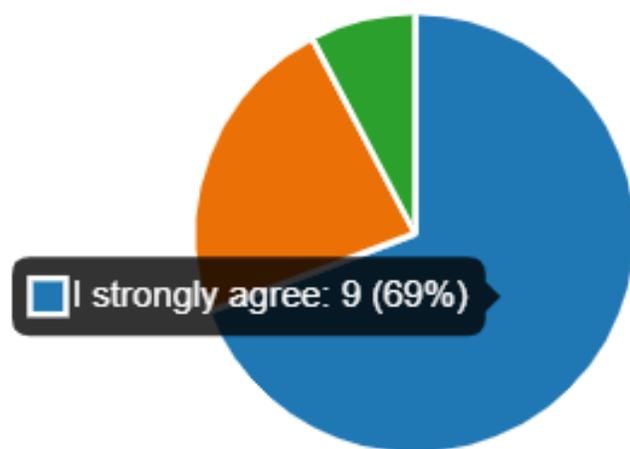


- preparatory phases are tiring and discouraging for students
- the number of students is a limitation - too many students prevents the proper transfer of knowledge and takes too much time
- lack of prior theoretical knowledge makes training less effective
- sometimes students experiment and overcomplicate exercises
- the difficulty for the trainer is to follow several stimulations at once



## 2. Do you agree with an opinion that in teaching, making use of the simulators boosts students self thinking process?

|   |   |
|---|---|
|  I strongly agree    | 9 |
|  I agree             | 3 |
|  I have no opinion   | 1 |
|  I disagree          | 0 |
|  I strongly disagree | 0 |



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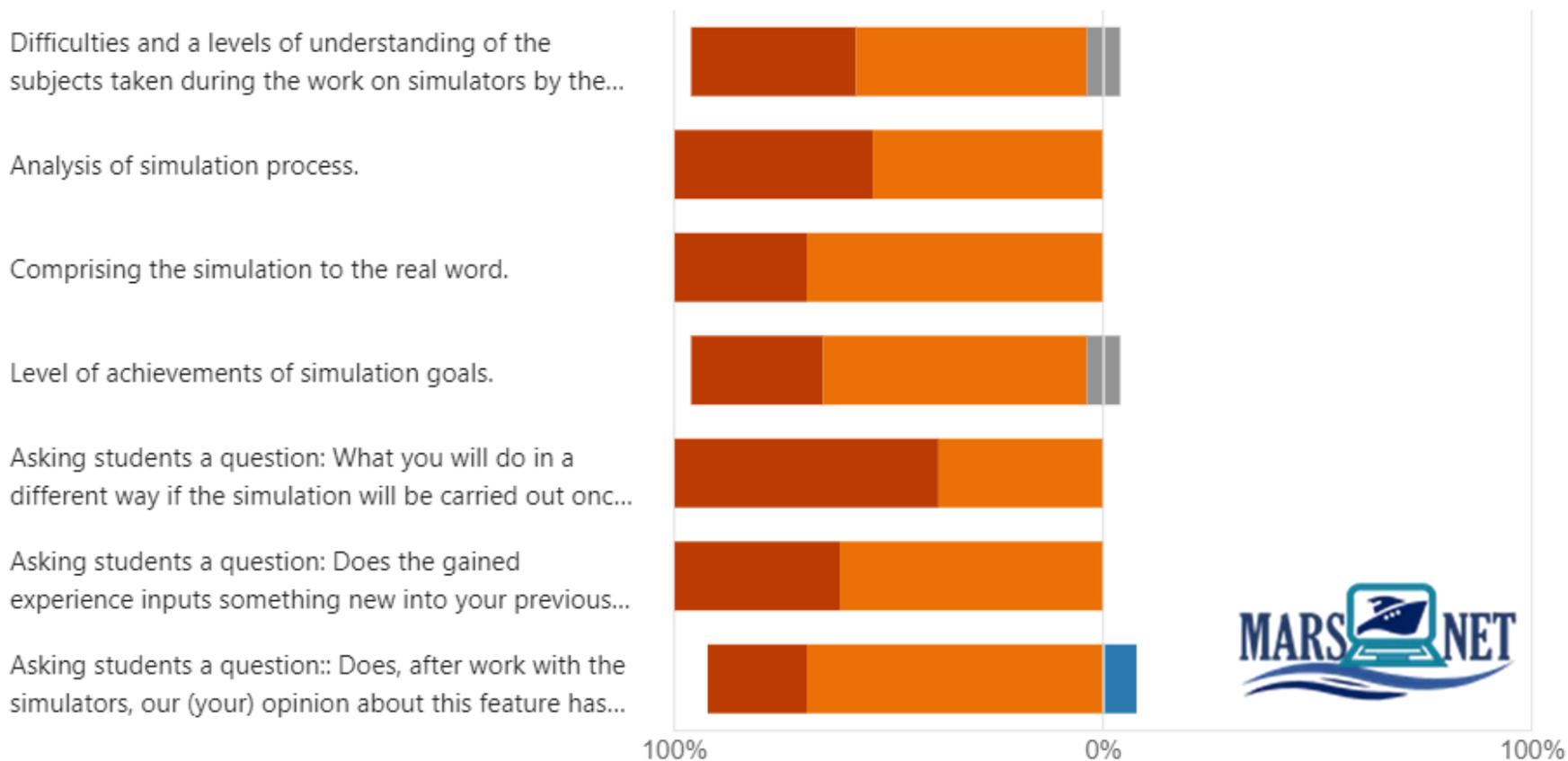


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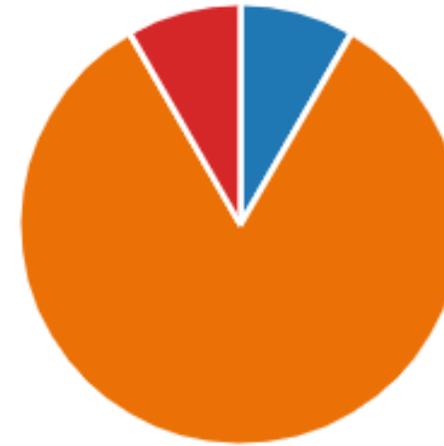
7. Do you think that after working on simulators with students it will be appropriate to raise the following issues in the summary:

■ I strongly agree  
 ■ I agree  
 ■ I disagree  
 ■ I strongly disagree  
 ■ I have no opinion



## 9. Have you found that the students are discovering new solutions during the simulation process?

|   |    |
|---|----|
|  yes               | 1  |
|  rather yes        | 10 |
|  I have no opinion | 0  |
|  rather no         | 1  |
|  no                | 0  |



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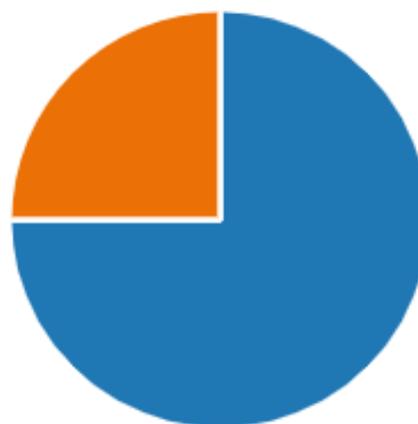


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11. **After the completion of your a work on simulators, did you discuss with the students the course of the simulation?**

- yes, always 9
- rather yes 3
- rather no ( pass over question 1... 0
- never (pass over the question 1... 0



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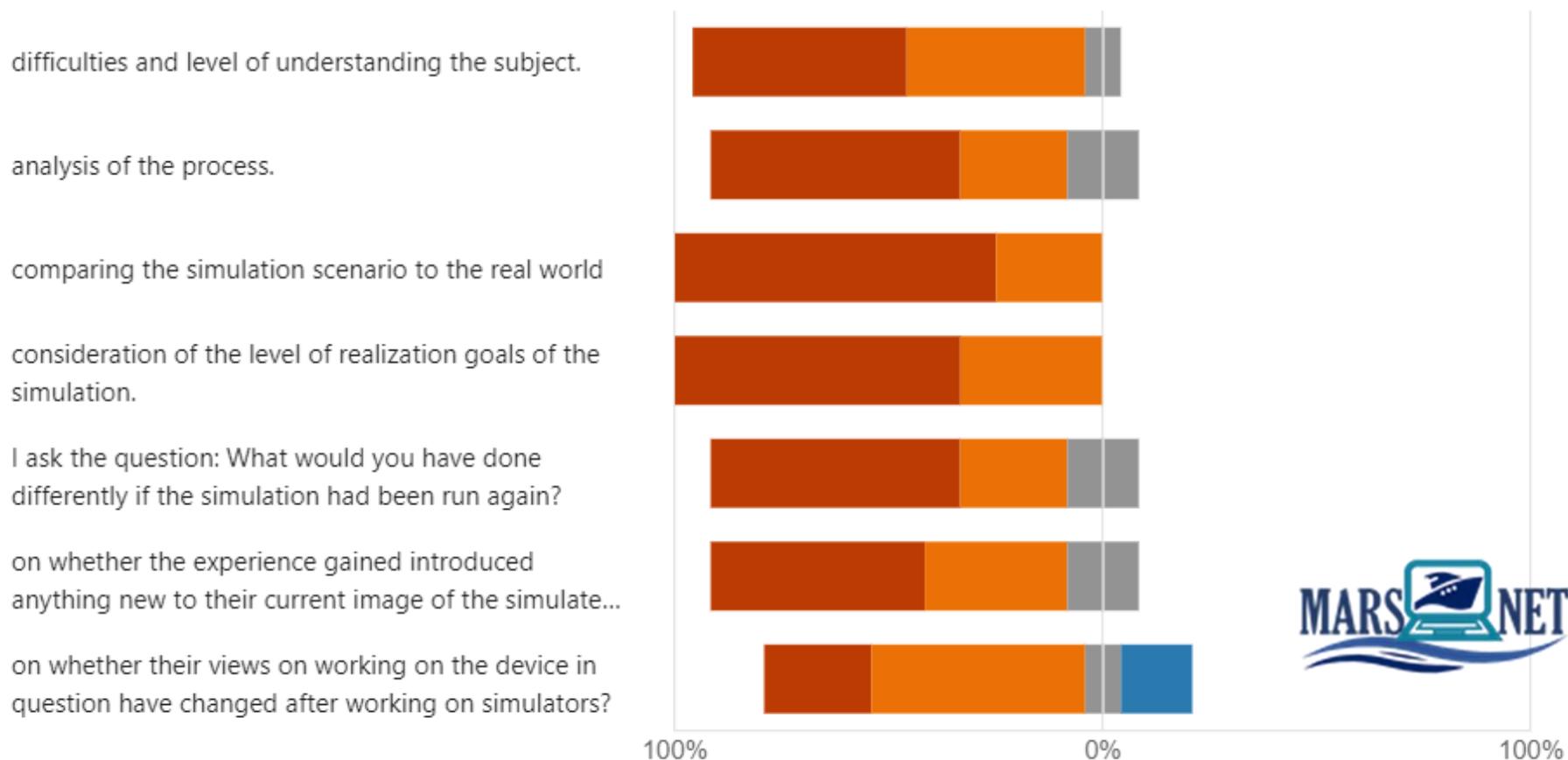


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## 12. During the summary course, do you most often talk to students about:

■ Yes, very often   
 ■ Yes, sometimes   
 ■ Rarely   
 ■ No, never   
 ■ I do not know



13. **After carried out a simulation, what is the most often way of summarisation with the students (discussing the simulation process)? (There are multiply answers.)**

