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Volunteering for the future – Geospatial excellence for a better living

Blended learning model for higher education in geodesy and geoinformation: Students' perspective

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INTRODUCTION

- For at least twenty years, b-learning has been evolving from a new idea to a widespread, effective education approach.
- The last decade has seen a growing interest in distance learning in Polish university education.
- The development of new curricula for many of the geoinformation courses taught at the studies in geodesy

METHODS (1/3)

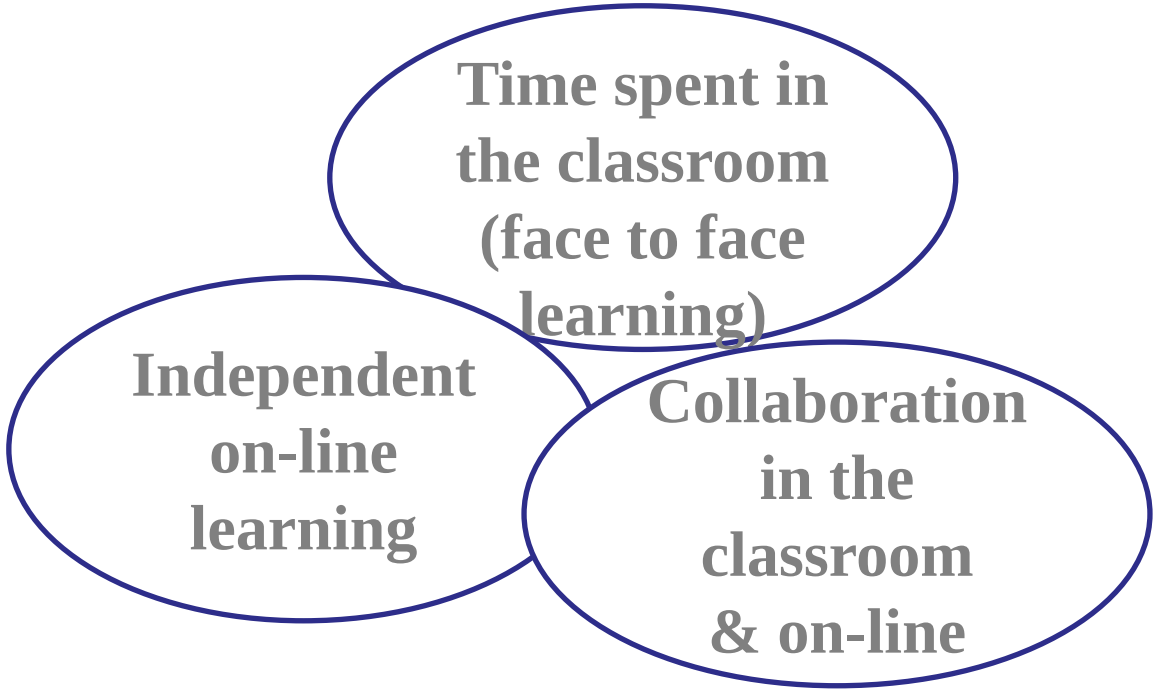
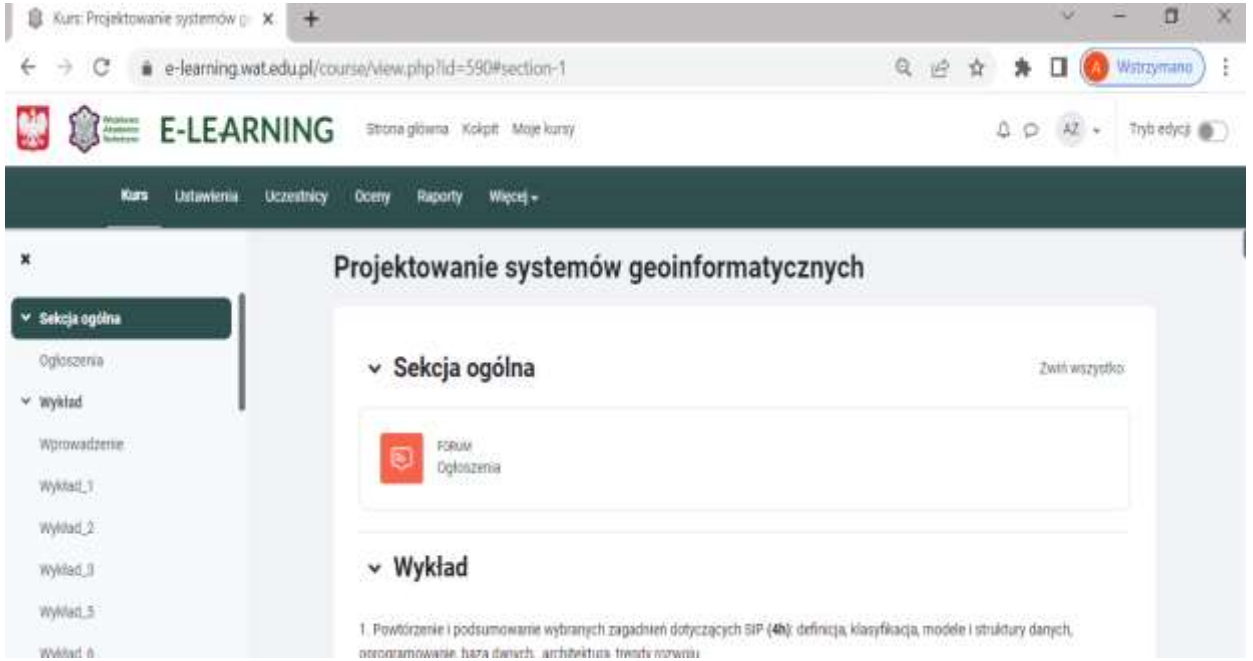


Fig. 1. Idea of b-learning at the Faculty of Civil Engineering and Geodesy of the Military University of Technology

METHODS (2/3)

Brainstorming results



University e-learning platform

Application of the Marshmallow challenge method

METHODS (3/3)

The questionnaire

Question
Q1–b-learning motivates to study
Q2–b-learning increases digital skills
Q3–b-learning motivates to self-learning
Q4–b-learning enables better time management
Q5–b-learning facilitates discussion with the lecturer
Q6–b-learning facilitates discussion with other students
Q7–b-learning gives full access to educational materials
Q8–b-learning should include
Q8a–lecture
Q8b–seminar
Q8c–computer project
Q8d–computer laboratory
Q8d–computational exercise

N=37 students

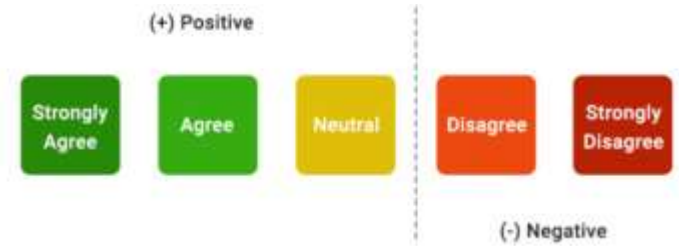


Fig.2. Liker scale of respondents' opinion

RESULTS (1/3)

Table 1. Questions and answers

Question	Strongly disagree	Disagree	Somewhat disagree	Agree	Strongly agree
Q1–b-learning motivates to study	10.8%	8.%	18.92%	21.%	40.5%
Q2–b-learning increases digital skills	8.1%	5.4%	13.5%	27.0%	45.9%
Q3–b-learning motivates to self-learning	18.9%	2.7%	10.8%	27.0%	40.5%
Q4–b-learning enables better time management	10.8%	0%	8.1%	16.2%	64.9%
Q5–b-learning facilitates discussion with the lecturer	13.5%	18.9%	13.5%	10.8%	43.2%
Q6–b-learning facilitates discussion with other students	5.4%	8.1%	27.0%	21.6%	37.8%
Q7–b-learning gives full access to educational materials	2.7%	5.4%	8.1%	18.9%	64.8%
Q8–b-learning should include					
Q8a–lecture	0%	5.4%	5.4%	8.1%	81.1%
Q8b–seminar	2.7%	2.7%	24.3%	13.5%	56.8%
Q8c–computer project	24.3%	13.5%	18.9%	10.8%	32.4%
Q8d–computer laboratory	13.5%	10.8%	13.5%	18.9%	43.2%
Q8d–computational exercise	21.6%	2.7%	29.7%	16.2%	29.7%

RESULTS (2/3)

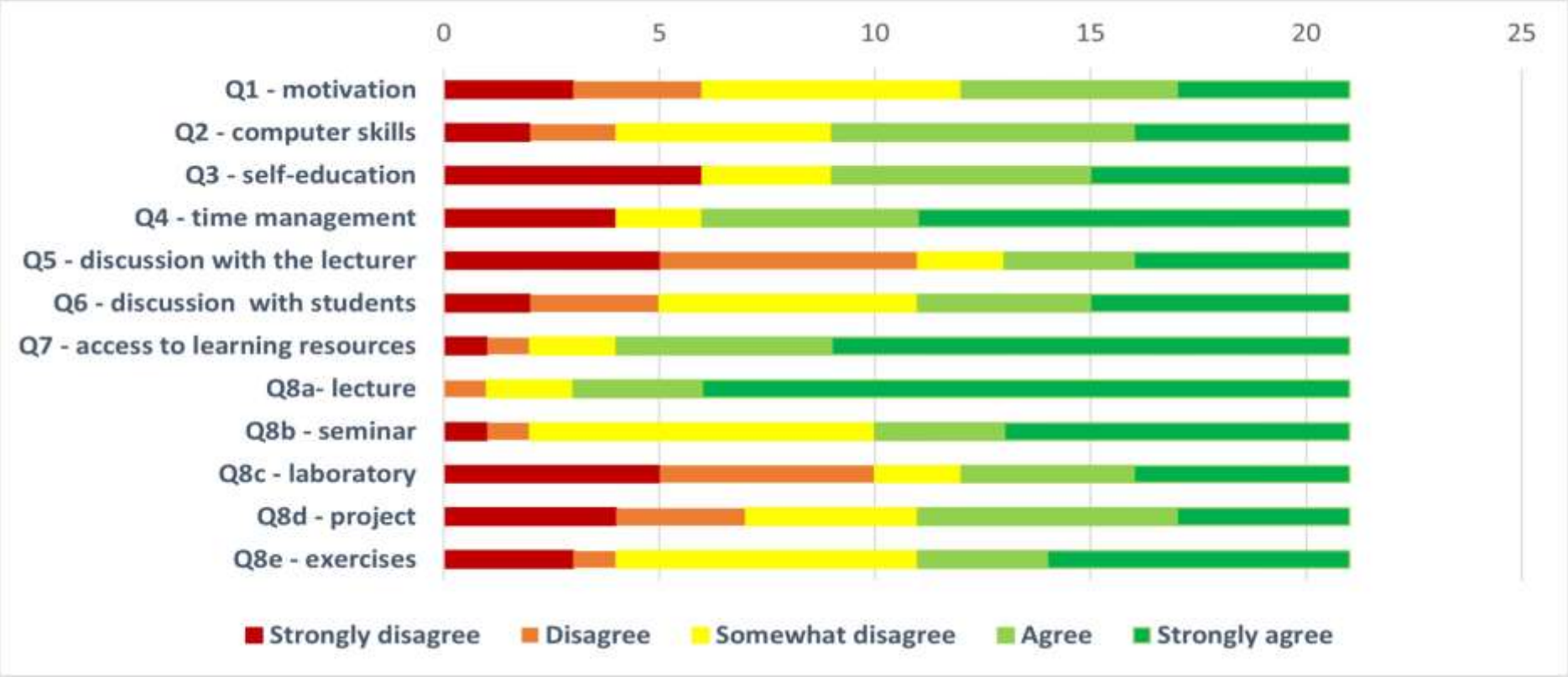


Fig.3. B-learning engineering students' assessment

RESULTS (3/3)

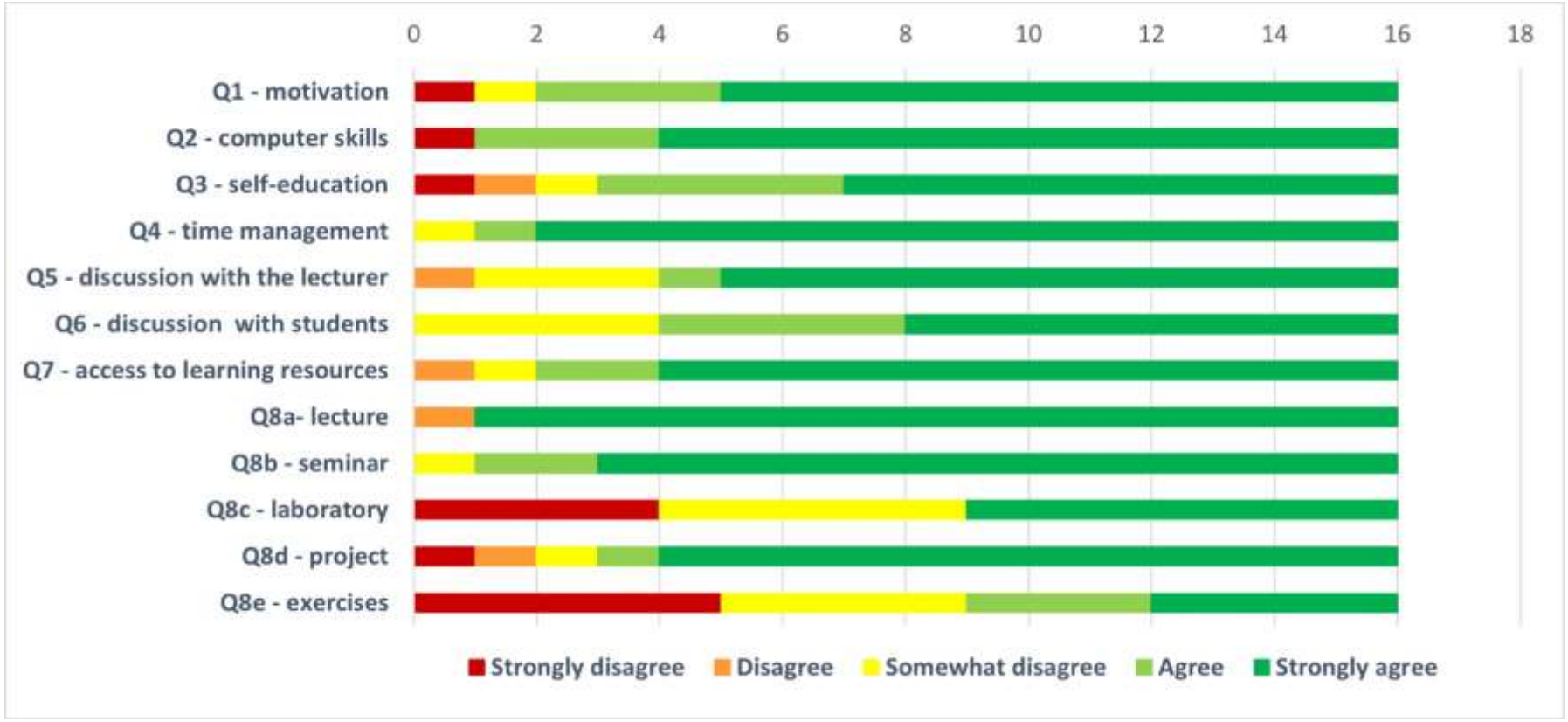


Fig. 4. B-learning master students' assessment

CONCLUSION

- Students especially appreciate the flexible hybrid learning environment: access to educational materials, giving feedback and ideas and real time communication with students and lecturers in the borderless environment.
- The main task of the teacher is not only to provide on and require knowledge, but also motivate the student to learn and maintain interest in the subject.
- A change in the way knowledge is passed on to students, including the preparation of various teaching materials.