



Students' Perceptions of Peer Assessment in a Web Programming Course: Reflections on Feedback, Learning, and Professional Improvement

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Abstract

This paper examines students' perceptions and attitudes toward peer feedback within the course *Introduction to Web Programming*. The primary aim is to explore how students perceive the contribution of peer evaluation to the enhancement of their projects, the development of reflective thinking, and the strengthening of professional competencies.

The research was conducted after the completion of student projects and the peer assessment phase, using a post-activity survey distributed to participating students. The survey was specifically designed to capture students' attitudes and experiences regarding various aspects of the peer feedback process. Responses were analyzed across several categories: technical correctness, visual quality, content relevance of feedback, presentation skills, emotional responses to feedback, sincerity, and reflective engagement.

Findings indicate that students generally viewed both giving and receiving peer comments as useful for improving project quality and supporting personal development, especially in relation to evaluation and self-evaluation skills. Moreover, students reported that peer feedback contributed to their critical thinking, boosted self-confidence, and fostered more constructive academic communication.

Based on these insights into student perspectives, the study proposes guidelines for the further implementation and improvement of peer assessment practices in technology-related educational settings.

Keywords: Peer Assessment, Peer Feedback, Self-evaluation, Web Programming, Student Projects

MSC2020: 97P10, 97U50

1. Introduction

Peer assessment has become an increasingly relevant component of higher education, particularly within practice-oriented courses that emphasize student autonomy, collaboration, and critical reflection. By involving students in the process of evaluating one another's work, peer assessment supports not only deeper engagement with the subject matter, but also the development of metacognitive, communicative, and evaluative skills. This approach allows learners to take on a dual role as both feedback providers and recipients, contributing to a more meaningful and active learning experience.

This study was conducted within the undergraduate course *Introduction to Web Programming*, where students are given an assignment to independently develop web projects that integrate both technical and design elements. Peer assessment in this context was applied across several criteria:

technical functionality (e.g., responsiveness, interactivity, events), visual design (layout, color scheme, typography), content relevance, and the clarity and structure of students' oral presentations.

Building on previous research in the same course (Matejić & Milenković, 2025), the current study shifts the focus from quantitative learning outcomes to the qualitative aspects of peer feedback. These aspects include cognitive usefulness, emotional impact, sincerity, and potential to foster reflection. The main aim is to explore how students perceive the peer assessment process, how it affects their motivation and project revisions, and whether it supports the development of broader professional competencies.

The remainder of the paper is structured as follows. Section 2 presents the theoretical background and related work on peer assessment in education. Section 3 describes the study's methodology and context of research. Section 4 analyzes and discusses both quantitative and qualitative findings. Finally, Section 5 concludes with the main findings and suggestions for future research.

2. Theoretical Background and Related Work

The concept of peer assessment has been widely investigated in educational literature, with a focus on its role in formative assessment, collaborative learning, and self-regulated education. Numerous studies have demonstrated that peer feedback can promote student engagement, enhance learning outcomes, and encourage critical thinking (Kulasi 2020; Zou et al., 2023; Milenković & Matejić, 2023; Kerman et al., 2024). According to Topping (2009), effective peer assessment helps students develop skills to consider work critically and also supports learning higher-level thinking skills. Additionally, peer assessment encourages students to think deeply about their own work and the work of others. This helps them become better at managing their own learning and reflecting on their progress. Studies by Nicol et al. (2013) and van Zundert et al. (2010) show that peer assessment promotes student independence and reflective thinking. It also helps students improve communication and teamwork skills, which are important for working well with others in professional settings.

In technology-related fields, peer assessment is increasingly recognized for its alignment with real-world professional practices, where individuals routinely review and refine work based on feedback. This approach is particularly valuable in programming education, where practical tasks involve both technical and design decisions. Studies have shown that structured peer assessment can improve learning outcomes, student accountability, and engagement (Sitthiworachart & Joy, 2004; Al-Khalifa & Devlin, 2020). Turner & Perez-Quinones (2009) observed that the format of peer review activities influences the depth of conceptual learning in computer science students, with implications for how abstraction and design principles are internalized. The integration of peer assessment within technology curricula reflects a broader pedagogical shift towards active, learner-centered education, emphasizing not only technical skills but also critical soft skills such as communication, collaboration, and self-regulation. This shift corresponds with industry demands for graduates who are not only technically competent but also capable of continuous learning and effective teamwork in dynamic environments. Also, earlier research underscores the importance of peer feedback in fostering these competencies, linking educational practice with professional realities (Boud & Molloy, 2012; Nicol, 2010).

Recent work further emphasizes the importance of student training, clarity of criteria, and feedback structure as essential components of successful peer assessment. For instance, Groenveld et al (2020) shows that peer assessment enhances students' motivation and self-evaluation accuracy, contributing to their long-term development of reflective and lifelong learning skills. Similarly, Ibarra-Saiz et al. (2020) identifies evaluative judgment and feedback quality as key mediators of competence development, suggesting that well-structured peer processes can yield deeper educational impact. When supported by clear rubrics and guided practice, even novice programmers can meaningfully evaluate peer work, leading to better understanding of core programming concepts and improved performance. Research also highlights that students value self-assessment

features and feedback, as they clarify expectations and make the review process more transparent (Al-Khaifa et al., 2021; Montagner, 2019). Additionally, peer review helps students internalize coding standards, develop evaluative judgment, and communicate feedback effectively (Li, 2006; Gehringer, 2001). Despite concerns about assessor credibility, students suggest that reviewer-author matching and rewarding constructive feedback can enhance trust and participation.

The current research builds upon a previous study conducted in the same course setting, which quantitatively examined the impact of peer feedback on students' project performance (Matejić & Milenković, 2025). That study identified significant improvements in technical accuracy, interface design, and functionality among students who participated in peer assessment compared to a control group. The present work complements these findings by focusing on the subjective experience of peer evaluation, exploring how students interpret and emotionally respond to feedback, how they perceive their own and others' contributions, and how the process supports deeper reflection. This perspective offers a more holistic understanding of the educational value of peer assessment in computing education. Such an approach is increasingly advocated in literature, as it captures not only measurable performance gains but also students' perceptions, motivations, and attitudes, which are key factors that shape long-term learning and engagement (Zheng et al., 2019; van Zundert et al., 2010).

3. Methodology

The study was conducted within the mandatory undergraduate course *Introduction to Web Programming*, attended by all first-year students at the Department of Computer Science, Faculty of Sciences and Mathematics, University of Niš. The research was carried out during the 2022/23 academic year, specifically in the second (summer) semester. The course is designed to combine theoretical knowledge with practical application, including a project-based assignment that requires students to independently develop a functional website. The curriculum covers the fundamentals of HTML, CSS, and JavaScript, along with key concepts of responsive design and website structuring. The main objective of the course is to equip students with the knowledge and skills necessary for designing and developing simple, functional websites and to foster the ability to apply that knowledge to real-world development scenarios. The maximum number of points that students can earn in the course is 100, of which 65 points are allocated to pre-exam obligations, while the remaining 35 points are awarded through an oral examination. The focus of the research is on an individual project assignment, which represents one of the most substantial components of the pre-exam requirements and carries a maximum of 20 points. This activity accounts for approximately one-third of the pre-exam points and one-fifth of the total course grade, reflecting its pedagogical weight and importance.

The project required students to independently design and develop a website based on a predefined topic. Each student was assigned one of approximately thirty topics and was expected to build a web site including elements such as a header and footer, navigation menu, images, tables, forms, interactive features and event handling using JavaScript, as well as a responsive layout adaptable to different device types and aligned with the given theme. This assignment simulates real-world requirements that students might encounter when working with clients. The project topics covered a variety of real-life domains such as dental clinics, travel agencies, fitness and spa centers, IT companies, bookstores, restaurants, different educational institutions. A complete list of all covered domains is provided in Appendix 1. Students were provided with guidelines and technical support throughout the course, but they were expected to demonstrate a high level of independence, creativity, and technical accuracy in completing their projects.

The significance of the project lies in its comprehensive evaluation of the knowledge and skills acquired throughout the course, as well as in the development of key competencies such as planning, task organization, technical problem-solving, self-evaluation and peer evaluation. Students worked on their projects throughout the semester and, upon completion, presented their

work in groups of four i.e. presenter their work to their peers and to the course teaching assistant. Students were randomly assigned to groups of four, to ensure heterogeneity, so that high-performing or low-performing students would not be grouped exclusively with peers of similar performance. Following the presentations, each student was asked to review the projects of three group members and provide written comments regarding technical correctness, fulfillment of project requirements, design quality, functionality, visual appeal, and the overall presentation of the work. The feedback exchange model is illustrated in Fig. 1.

These were exactly the categories used by the course teaching assistant when evaluating the students' projects. The peer evaluation process was facilitated through a custom application developed specifically for this research, available at <http://evaluacija.xyz>. This application provided anonymous comments, while allowing the instructor to organize students into groups and review the submitted comments. It is important to note that the application is not anonymous from the instructor's perspective, in order to allow the identification and potential sanctioning of any inappropriate comments.

After completing the peer evaluation phase, students were given a period of one week to revise their projects if they chose to do so, before the final grading conducted by the teaching assistant. In addition, students had the opportunity to respond to the comments they received, indicating whether they accepted the suggestions, disagreed with them, or felt the comments were justified or not. This reflective component encouraged students to engage critically with the feedback and supported the development of evaluative judgment and self-regulation skills. The peer feedback scheme is illustrated in the following diagram. Solid arrows represent the feedback that students gave to their peers, while dashed arrows indicate the reflective feedback students provided in response to the comments they received.

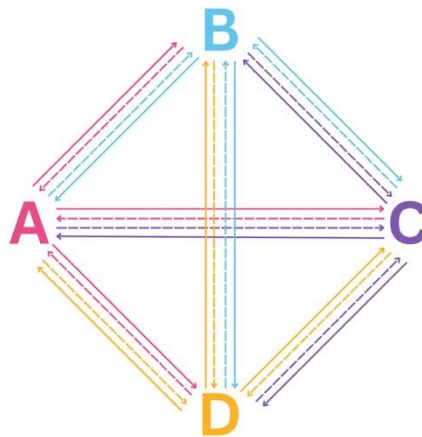


Fig. 1. Peer feedback scheme (reproduced from Matejić & Milenković, 2025)

After the grading phase, students were asked to complete a survey consisting of 30 questions, designed to collect their impressions and experiences with the peer assessment process. The data collected through this instrument represent the core of the present study. Students participated on a voluntary and anonymous basis. Prior to completion, students were informed about the purpose of the questionnaire and the importance of their honest feedback. The survey addressed students' perceptions of the usefulness of both received and provided comments, their comfort level and sincerity during the evaluation process, emotional reactions to feedback, motivation to improve their work, and overall impressions of comment quality.

The questionnaire covered several thematic categories: demographic data and prior experience with similar activities; evaluation of the usefulness of feedback across various aspects of the project; reflection and impact of comments; perception of sincerity and objectivity; emotional responses to the process of giving and receiving feedback; and whether any changes were made to the project as a result. The majority of the questions used a four-point Likert-type scale, where students expressed their level of agreement with presented statements. On this scale, the responses were coded as

follows: 1 – not at all, 2 – slightly, 3 – strongly, and 4 – completely. In addition to these, the survey included four binary-choice questions and one open-ended question. This information is important for interpreting the results, particularly in the context of the statistical indicators used in the study (arithmetic mean, median, and standard deviation).

A total of 46 students participated in the survey (6 female and 40 male). The questionnaire was distributed via Google Forms, and all responses were analyzed anonymously. The complete list of questions, thematic categories, and answer options is provided in Appendix 2.

A total of 77 students were enrolled in the course during the 2022/23 academic year. Of these, 52 submitted the project and participated in peer assessment evaluation. The project was a mandatory component and a prerequisite for taking the final exam. Among them, 46 students participated in the survey, representing approximately 88.5% of those who participated in peer assessment and nearly 60% of all enrolled students. The questionnaire was distributed via Google Forms, and all responses were analyzed anonymously. The complete list of questions, thematic categories, and answer options is provided in Appendix 2.

4. Results

Before interpreting the detailed results of the survey, it is important to highlight that for 40% of the students, this was their first encounter with peer assessment. This fact suggests that this activity offered not only an opportunity for evaluation but also a novel learning experience for a substantial portion of the participants.

The results of the study indicate that students generally rated the usefulness of peer assessment highly, both in terms of the technical and visual aspects of website development. Responses related to technical requirements received high average ratings of $M = 3.40$ for received comments (questions 3 and 5), and $M = 3.41$ for provided feedback (questions 4 and 6). In the visual domain (topic relevance, color harmony, readability, and layout i.e. questions from 7 to 12), the average ratings were $M = 3.48$ for received and $M = 3.46$ for provided feedback. In all categories, the median rating was 4, indicating that most students found the comments to be extremely helpful. Relatively low standard deviation values (ranging from 0.8 to 0.84) reflect a high level of agreement among students, with only minor differences likely due to individual interpretation and the subjective nature of visual evaluation.

The overall quality of the peer comments, both in terms of content and their contribution to project improvement, was also rated highly ($M = 3.33$ for received comments - questions 13, 15, 17 and $M = 3.39$ for provided feedback - questions 14, 16, 18), further reinforcing the positive perception of the process. The close alignment between evaluations of given and received feedback suggests that students approached the task seriously and recognized peer assessment as an integral part of quality development. These values closely match those obtained earlier for questions specifically related to the commenting on technical and visual aspects of the websites. This consistency across categories indicates that students provided feedback thoughtfully and sincerely, particularly in areas that directly reflect their peers' effort and skill.

A specific section of the survey focused on the perceived usefulness of comments related to oral presentations, including aspects such as pacing, emphasis on key website elements, clarity, and organization (questions 19 and 20). The results show that this dimension of peer assessment was also evaluated positively. Feedback received on presentation performance was rated at $M = 3.43$ ($SD = 0.77$, $Md = 4$), while feedback given to peers was rated at $M = 3.37$ ($SD = 0.76$, $Md = 4$). These values suggest that participants recognized the value of peer feedback not only in the technical and visual components of the project, but also in the development of their presentation skills. The relatively low standard deviation values in this section also reflect a high level of consensus among respondents, as shown in Table 1.

Table 1. Peer feedback evaluation by different project dimensions

	Comments on website functionality		Comments on visual design features		Comments quality		Presentation skills	
	Received	Provided	Received	Provided	Received	Provided	Received	Provided
M	3.40	3.41	3.48	3.46	3.33	3.39	3.43	3.37
SD	0.82	0.84	0.8	0.83	0.84	0.8	0.77	0.76
Md	4	4	4	4	4	4	4	4

In the qualitative portion of the analysis, responses to open-ended questions revealed that a significant number of students (78.26%) made concrete changes to their projects based on the peer feedback received. Typical revisions included improvements to visual aspects, the addition of new features, and adjustments to responsiveness and navigation. Some students reported that peer feedback helped them identify issues they had previously overlooked, while others noted that reviewing their peers' work served as inspiration to enhance their own solutions. A summary of these affective and behavioral outcomes is presented in Table 2.

Table 2. Summary of affective and behavioral outcomes of peer assessment

	Overstating the quality of peer work		Understating the quality of peer work		Comfort during peer evaluation		Reflective engagement
	Received	Provided	Received	Provided	Received	Provided	
M	2.67	2.22	1.15	1.13	3.35	3.61	3.41
SD	0.93	1.02	0.51	0.49	0.73	0.61	0.77
Md	3	2	1	1	3	4	4

An additional analysis revealed meaningful differences between students with and without prior peer assessment experience. Students without prior experience reported lower comfort in giving feedback ($M = 3.25$, $SD = 0.79$) compared to experienced students ($M = 3.38$, $SD = 0.70$). They also rated received feedback more positively ($M = 3.55$, $SD = 0.69$, $Md = 4$) than those with experience ($M = 3.15$, $SD = 0.97$, $Md = 3$). Additionally, they rated their own provided comments higher ($M = 3.60$, $SD = 0.60$, $Md = 4$) compared to experienced students ($M = 3.27$, $SD = 0.87$, $Md = 3.5$). This suggests that familiarity with peer assessment influences expectations and criticality in feedback giving and receiving.

Furthermore, the reflective engagement dimension was high ($M = 3.41$, $SD = 0.77$, $Md = 4$), indicating that peer assessment promoted metacognitive skills such as self-evaluation and critical thinking, as many students reported revising their projects based on feedback received.

5. Discussion

These results further reinforce the conclusion that students involved in peer assessment do not focus exclusively on the "product", in this case the website, but also pay attention to the "process" i.e., the way in which the solution is presented. This represents an important step toward the development of more comprehensive professional competencies.

Interestingly, students were more willing to acknowledge that their own work may have been portrayed more favorably than it actually was, than to admit having done the same when commenting on others' projects. This suggests a stronger sense of self-criticism, while their own comments were generally perceived as objective. On the other hand, the notion that peer feedback was negatively biased was almost unanimously rejected, indicating that the assessment process was carried out in a constructive and collegial manner.

From an emotional standpoint, students evaluated the peer assessment experience as predominantly positive. They generally felt more comfortable giving feedback than receiving it, which may reflect a greater psychological pressure or discomfort when confronted with critique. Nevertheless, most students did not experience significant discomfort during either phase of the process. If we consider students who had never previously participated in peer assessment, we find

that their comfort level when giving feedback was noticeably lower compared to their more experienced peers. This suggests that familiarity with peer assessment may help reduce initial discomfort and foster greater ease in communicating feedback, highlighting the importance of repeated exposure and scaffolding in building students' confidence in evaluative tasks.

Additionally, we considered how the perceived quality of received suggestions varied depending on students' prior experience. Interestingly, students without previous experience rated the feedback they received more positively than those who had already participated in similar activities. This may indicate that more experienced students hold higher expectations of their peers, possibly informed by previous exposure to the process. Moreover, these differences in expectations seem to extend to self-evaluation. Students with prior experience were also more critical of the feedback they provided, whereas their less experienced peers rated their own comments more favorably. These findings suggest that repeated engagement with peer assessment not only raises standards but also encourages a more self-critical and reflective approach to giving feedback.

The reflective dimension of peer assessment was clearly confirmed, demonstrating that the process of commenting contributed to deeper engagement with the subject matter and the development of critical thinking skills. This supports the notion that peer assessment also carries considerable metacognitive value, encouraging students to practice self-evaluation and engage in analytical reflection on the quality and rationale of their work.

These results are largely in line with findings from related studies, such as those by [Topping \(1998\)](#) and [van Zundert et al. \(2010\)](#), focused on the importance of peer assessment on critical thinking, metacognition, and active learning. More recent meta-analyses ([Panadero & Lipnevich, 2022](#); [Huisman et al., 2023](#)) highlighted that combining peer and self-assessment can meaningfully improve student learning outcomes. This effect is particularly strong when these assessments are delivered in structured formats, such as using clear rubrics, guided reflection prompts, and iterative feedback cycles, as was the case in this study. Furthermore, studies have shown that students with repeated experience in peer assessment develop higher expectations and adopt a more critical evaluative stance ([Li et al., 2009](#)), which directly reflects the pattern observed in our data.

Notably, some previous research has expressed concerns about the fairness and possible bias in peer comments. However, in our study, such concerns were rare. This suggests that the students engaged in a particularly constructive and supportive assessment environment. Overall, these findings suggest that repeated involvement in peer assessment supports the development of important professional competencies, including evaluative judgment, critical self-reflection, and effective communication skills, all of which are essential for future IT professionals.

6. Conclusion

The findings of this study confirmed the multifaceted value of peer assessment in practice-oriented courses such as *Introduction to Web Programming*. Quantitative analysis showed that students highly appreciated both the feedback they received and the feedback they provided, with average ratings exceeding 3.3 (on a 1-4 scale) in most categories and a median of 4, indicating consistent agreement on the usefulness of the process. Comments were rated as particularly valuable in areas of technical correctness and visual presentation, but also in the domain of oral presentation, demonstrating that students assessed not only the final product, but also the process of development and communication of their solutions.

This research builds upon our previous study, in which it was shown that students who participated in peer feedback created statistically significantly better website projects both in technical implementation and design, compared to their peers who were not involved in peer assessment activities. This earlier finding underscores the concrete impact of peer assessment on project quality, while the present study complements it by providing evidence that students themselves perceive peer feedback as useful, constructive, and motivating. The contribution of peer

assessment is evident not only in the improvement of project quality, but also in the development of higher-order cognitive skills.

In particular, many students stated that the act of commenting prompted deeper thinking, greater awareness of evaluation criteria, and a more critical stance toward both their own and others' work. Furthermore, most participants revised their projects after exchanging feedback, with most of them implementing concrete changes. In this regard, peer comments served both corrective and inspirational functions. The communication among peers was perceived as sincere and supportive, with nearly unanimous rejection of claims of negative bias, further confirming that the peer assessment process was conducted in a constructive and collegial atmosphere.

These results point to the broader applicability of peer assessment beyond a single course. In line with previous studies, our findings confirm that peer feedback supports not only improved project quality but also enhanced reflective engagement and the development of evaluative, metacognitive, and communicative skills. Given these demonstrated benefits, peer feedback could be effectively integrated into other computer science and informatics courses, especially those that require creative approaches and where multiple valid solutions exist.

As directions for future research, there is a need to further explore deeper differences among students based on their prior experience with peer assessment, in order to determine whether and to what extent such experience influences the quality of feedback, levels of confidence, and reflective engagement. Additionally, more in-depth qualitative analysis of the comments, both within the survey and during the peer review phase, could help assess their depth, specificity, and constructiveness. To further enhance the process, implementing workshops on how to provide effective feedback may help raise awareness of its importance and encourage greater sincerity. Moreover, future studies could examine the potential correlation between students' ability to present their projects clearly or to formulate insightful comments, and the number of points they achieved for the project activity. Such analysis could provide additional insights into whether strong communication and critical evaluation skills contribute not only to the peer assessment process, but also to students' overall academic success and professional development.

In conclusion, the results suggest that peer assessment extends far beyond evaluation. It has the potential to serve as a rich learning strategy that fosters self-assessment, critical thinking, and the development of essential professional competencies among future IT professionals.

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Appendix 1

Table 3. List of the project topics

No.	Categories	No.	Categories	No.	Categories
1	Medical Center	13	Bank	25	Fitness Club
2	Dental Office	14	Currency Exchange Office	26	Gym Club
3	Travel Agency	15	Internet or Cable Provider	27	Yoga Club
4	Sports Club	16	Mobile Telephony	28	Beauty Salon
5	Taxi Service	17	IT Company	29	Spa Center
6	Kindergarten	18	Library	30	Car Dealership
7	School	19	Bookstore	31	Pharmacy
8	Faculty	20	Law Office	32	Health Food Store
9	Café	21	Accounting Agency	33	Taxi Service
10	Nightclub	22	Cinema	34	Museum / Cultural Center
11	Restaurant	23	Theater	35	Event Planning Agency
12	Hotel / Hostel	24	Pet Store	36	Music School / Art Studio

Appendix 2

Table 4. List of questions rated by students to assess their attitudes and level of agreement in the final survey

No.	Categories	Question	Options
1	Gender	Gender	F / M
2	Prior experience	Have you previously evaluated your colleagues' work (provided comments, suggestions, and impressions)?	Yes / No
3	Technical requirements of the project	I consider the comments and suggestions I received from colleagues regarding whether the created website meets the project requirements (contains a header and/or footer, an image, a menu, a personal presentation page, a table, a form, a function, and an event) useful.	1 – not at all 2 – slightly 3 – strongly 4 – completely
4		I consider the comments and suggestions I gave to colleagues regarding whether the created website meets the project requirements (contains a header and/or footer, an image, a menu, a personal presentation page, a table, a form, a function, and an event) useful.	
5		I consider the comments and suggestions I received from colleagues regarding whether the website is responsive and whether the page design adapts to the device on which the site is viewed useful.	
6		I consider the comments and suggestions I gave to colleagues regarding whether the website is responsive and whether the page design adapts to the device on which the site is viewed useful.	
7	Visual domain of the project	I consider the comments and suggestions I received from colleagues regarding whether the website content corresponds to the assigned topic useful.	
8		I consider the comments and suggestions I gave to colleagues regarding whether the website content corresponds to the assigned topic useful.	
9		I consider the comments and suggestions I received from colleagues regarding whether the website is visually appealing, with harmonious color choices and readable text, useful.	
10		I consider the comments and suggestions I gave to colleagues regarding whether the website is visually appealing, with harmonious color choices and readable text, useful.	
11		I consider the comments and suggestions I received from colleagues regarding whether the layout of elements on the website is clear and intuitive (easy to navigate and quickly find desired content) useful.	

12		I consider the comments and suggestions I gave to colleagues regarding whether the layout of elements on the website is clear and intuitive (easy to navigate and quickly find desired content) useful.	
13	Quality of the peer comments	I consider the comments and suggestions I received from colleagues regarding whether they would add any segments to improve the website quality useful.	
14		I consider the comments and suggestions I gave to colleagues regarding whether I would add any segments to improve the website quality useful.	
15		I consider the overall quality (substance) of comments and suggestions I received to be high.	
16		I consider the overall quality (substance) of comments and suggestions I gave to be high.	
17		Overall, I consider the comments I received useful for improving my project assignment.	
18		Overall, I consider the comments I gave useful for improving my colleagues' project assignments.	
19	Presentation skills	I consider the comments and suggestions I received from colleagues regarding my presentation (pace of presentation, emphasis on key parts, precision, and systematic approach) useful.	
20		I consider the comments and suggestions I gave to colleagues regarding their presentation (pace of presentation, emphasis on key parts, precision, and systematic approach) useful.	
21	Overstating the quality of peer work	The colleagues who commented on my work tended to portray my work as better than it actually is.	
22		When giving comments and suggestions on colleagues' works, I tended to portray those works as better than they actually were.	
23	Understating the quality of peer work	The colleagues who commented on my work tended to portray my work as worse than it actually is.	
24		When giving comments and suggestions on colleagues' works, I tended to portray those works as worse than they actually were.	
25	Comfort during peer evaluation	When giving comments and suggestions on my colleagues' work, I felt comfortable.	
26		When reading comments and suggestions related to my work and responding to them, I felt comfortable.	
27	Reflective engagement	I believe that through mutual giving of comments and suggestions, I had the opportunity to think more deeply about the topic and critically reflect on my own and others' work.	
28		Based on the comments and suggestions I received from my colleagues, I conducted a review (re-analysis) of my work.	Yes / No
29		Based on the comments and suggestions I received from my colleagues, I made certain corrections (changes) to my work.	
30		If your answer to the last question is YES, in what way did the corrections manifest, what was changed compared to the initial version of the project assignment?	Open answer