

Table S2. Items reviewed and modified after the review.

Netiquette		
Item	Comments and suggestions	Actions implemented
Item 3	It is not very clear the action requested in the task.	(Simulation) Complete the statement indicating better the action to be expected by the user.
Item 5	The question contains ambiguous answers.	(Multiple choice) Modify the wording of the question to make it more comprehensible.
Item 6	The statement is ambiguous.	(Multiple choice) Modify the wording of the question to make more comprehensible.
Item 14	The statement is ambiguous.	(Multiple choice) Item modified
Item 21	We received too many comments related to this question. It seems that there is no common view on this issue.	(Multiple choice) Item removed from the item bank
Item 22	It seems that there is no common view on this issue, and we were unsure whether to include it or not.	(Simulation) Item replaced with another item from the item bank
Item 23	The question contains ambiguous answers.	(Simulation) Item replaced with another item from the item bank
Item 28	It has a spelling mistake and two options are very similar.	(Image-based question) Item modified
Item 32	It is not very clear the action requested in the task. It would be recommendable to use another item format.	(Image-based question) Format of the item modified to improve the functionality.
Item 36	Explain the statement better. Too easy.	(Simulation) Item modified allowing fewer attempts
Item 42	We received too many comments related to this question. It seems to be very confusing and difficult to understand.	(Simulation) Item replaced with another item from the item bank
Browsing, searching, and filtering data, information and digital content		
Item	Comments and suggestions	Actions implemented
Item 1	It would be recommendable to use another item format.	(Multiple choice) Format of the item modified to improve the functionality.
Item 3	Explain the statement better. It is a little ambiguous.	(Multiple choice) Modify the wording of the question to make it more comprehensible.
Item 4	It would be recommendable to clarify better how to introduce the solution (the format)	(Web simulation) Modified the wording of the statement to make it more comprehensible.
Item 5	We received too many comments related to this question. It is not very clear the action requested in the task. It would be recommendable to use another item format. In this case it is not necessary to use a simulation. It adds extra difficulty.	(Image-based question) Format of the item modified to an image-based question in order to improve the functionality.

Item 6	It would be recommendable to clarify better how to introduce the solution (the format)	(Web simulation) Modified the wording of the statement to make it more comprehensible.
Item 11	It is possible to solve the task taking a new path which has not been included in the simulation.	(Simulation) Simulation modified including a new valid path for achieving the solution.
Item 12	We received too many comments related to the quality of the image in the question (relevant considering that it is an image-based question)	(Image-based question) Improved the quality of the image.
Item 16	It is possible to solve the task introduced a new valid term which has not been included in the simulation.	(Simulation) Simulation modified including a new valid term for achieving the solution.
Item 17	We received too many comments related to this question. It would be recommendable to use another item format. In this case it is not necessary to use a simulation. It adds extra difficulty.	(Image-based question) Format of the item modified to an image-based question in order to improve the functionality.
Item 18	We received too many comments related to this question. It would be recommendable to use another item format. In this case it is not necessary to use a simulation. It adds extra difficulty.	(Image-based question) Format of the item modified to an image-based question in order to improve the functionality.
Item 23	The simulation has technical problems.	(Simulation) Simulation modified.
Item 24	Problems downloading the attachment.	(Interaction with the workstation) Item modified.
Item 28	This question should be advanced. This functionality is not well known to users.	(Simulation) Duly annotated.
Item 31	We received many comments about the ambiguity of the question.	(Multiple choice) Item replaced/removed.
Item 35	Improve the usability of the simulation.	(Simulation) Simulation modified.

Evaluating data, information, and digital content

Item	Comments and suggestions	Actions implemented
Item9	We received many comments about the ambiguity of two possible answers. They are too similar.	(Simulation) Item replaced (we did not like it)
Item10	We received many comments about the ambiguity of two possible answers. They are too similar.	(Image-based question) Item modified
Item11	We received suggestions to modify the logo of the journal and put a generic one.	(Image-based question) Image of the item improved
Item12	Different types of comments and suggestions.	(Simulation) Item replaced (we did not like it)
Item17	Different types of comments and suggestions.	(Image-based question) Item replaced (we did not like it)

Item20	It is too similar to another question.	(Multiple choice) Item replaced
Item22	Different types of comments and suggestions.	(Image-based question) Item replaced (we did not like it)
Item23	We received some comments about the ambiguity of the answers and about some aspects of the image.	(Image-based question) Image of the item improved. Modified the wording of the statement and the options to make the question more comprehensible.
Item24	We received some comments about the ambiguity of the answers and about some aspects of the image.	(Image-based question) Image of the item improved. Modified the wording of the statement and the options to make the question more comprehensible.
Item27	We received many comments about the ambiguity of two possible answers.	(Multiple choice) Item modified
Item29	We received some comments about the ambiguity of the answers and about some aspects of the image.	(Image-based question) Image of the item improved. Modified the wording of the statement and the options to make the question more comprehensible.
Item35	We received some comments about the ambiguity of the answers and about some aspects of the image.	(Image-based question) Image of the item improved. Modified the wording of the statement and the options to make the question more comprehensible.
Item36	Different types of comments and suggestions.	(Simulation) Item replaced (we did not like it)

Managing data, information, and digital content

Item	Comments and suggestions	Actions implemented
Item3	We received many comments about the ambiguity of two possible answers.	(multiple choice) Item modified
Item4	We received some suggestions to improve the statement.	(multiple choice) Item modified
Item5	Different types of comments and suggestions.	(multiple choice) Item replaced (we did not like it)
Item6	We received some comments about the ambiguity of the answers.	(multiple choice) Item modified
Item7	We received some comments about actions that should be allowed and another path to the solution that is not included in the simulation.	(Simulation) Simulation modified including clicks and double-clicks and adding a new path to the solution.
Item8	We received several suggestions on including the double-click	(Simulation) Simulation modified including the double-click action.
Item9	We received several suggestions on including the right-click	(Simulation) Simulation modified including the right-click action.
Item11	We received some comments about the ambiguity of the answers.	(multiple choice) Item modified.
Item14	This question should be advanced. This functionality is not well known to users.	(multiple choice) Duly annotated.
Item15	Different types of comments and suggestions.	(multiple choice) Item replaced (we did not like it)
Item17	We received some comments about adding another path to the solution.	(Simulation) Simulation modified adding a new path to the solution.
Item21	We received several suggestions on including the double-click reducing the	(Simulation) Simulation modified allowing the double-click and decreased the number of wrong clicks allowed.

	number of wrong clicks allowed and rewording the statement.	
Item22	We received some comments about the ambiguity of the answers.	(multiple choice) Item modified.
Item25	We received several suggestions on including some allowed actions and paths that initially were not included.	(Simulation) Simulation modified, including more possible actions and a new path.
Item28	We received several suggestions on including some allowed actions that initially were not included.	(Simulation) Simulation modified including more possible actions (double-click and right-click).
Item29	We received several suggestions on including some allowed actions and paths that initially were not included.	(Simulation) Simulation modified, including more possible actions and a new path.
Item30	Different types of comments and suggestions.	(Simulation) Item replaced (we did not like it)