



PARSEL teaching –learning materials compiled by the consortium
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Planning a space trip to Mars

Assessment

In order for assessment to play a formative role, students should be previously informed about the assessment criteria. Assessment should base on the individual reports as well as on the construction of the plan and its presentation.

Criteria for assessing individual reports are presented next (competence assessment, inside round brackets):

1. Evidenced knowledge about issues; correction of presented information and concepts (Knowledge).
2. Quality of the information collection and analysis processes; plausibility of presented plan (Reasoning).
3. Ability to use internet for obtaining answers; degree to each presentation is clear (Communication).

Assessing group work (construction of a trip plan) can focus mainly in attitudinal and communicational domains. For instance:

1. Responsibility for playing allocated character or tasks; type of personal intervention; relationship with group peers; decision make; time management (Attitudes).
2. Oral participation (Communication).

This task assessment can be based on the student assessment tool (group work assessment), presented next (Table 1). This student assessment tool is only a suggestion. Teacher can include other criteria for assessment whenever he/she finds it appropriate for the objectives he/she defined previously.

Developers: Galvão, C., Reis, P., Freire, A. e Oliveira, T. (2006). Avaliação de competências em ciências: Sugestões para professores do ensino básico e do ensino secundário. [Competence evaluation in science. Suggestions for basic and secondary education teachers]. Lisboa: ASA.
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	1	2	3	4	Scores
Student accepts responsibility for his/her tasks or roles within the group	Student does not perform any of the tasks/roles for which he/she is responsible. Those are performed by his/ her group peers	Student seldom performs any of the tasks/roles for which he/she is responsible. Often he/she needs others to remind him/her of his/her duties.	Student frequently performs the tasks/roles for which he/she is responsible. Student seldom needs others to remind him/her of his/her duties.	Student accomplishes the tasks/roles for which he/she is responsible. Student does not need others to remind him/her of his/her duties	___/ 4
Kind of personal intervention	Student seldom presents useful ideas during group work. Student does not keep up with group work's evolution	Student promptly contributes to group work, although sometimes he/she gets distracted	Student contributes to group work and is responsible for his/her tasks	Student contributes to group work and stimulates his/her peers' participation. His/her contribution is crucial for group work success	___/ 4
Relationship with group peers	Student looks indifferent or exerts an authoritative leaderships, with a negative impact on group work functioning	Student looks interested, although he/ she does not interfere with work group dynamics	Student looks interested with work group dynamics and makes positive contribution to it	Student interacts positively with others or presents positive leadership skills, with a positive impact on group work functioning	___/ 4
Making decisions	Student does not try to solve any problem or help his/her peers with it	Student does not present any solutions, but is willing to try-out the solutions	Student makes important contributions in order to improve solutions	Student actively seeks for and presents solutions for the problem	___/ 4

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		presented by others	presented by others		
Time management	Student does not finish his/her tasks on time and as a result group cannot meet deadlines hold-up	Student does not finish his/ her tasks on time. Although group can still meet deadlines, the quality of the group work is affected by that behaviour	Student hold-up his/her task completion but at the end he/she can finish it on time and the group can meet deadlines.	Student can manage his/her time adequately, completing his/her tasks on time.	___/ 4
Oral participation	Student does not participate or is always talking, not allowing others to talk	Student participates quite often, restraining others oral participation	Student can hear his/ her peers, but sometimes he/she talks to much, not allowing others to talk	Student can hear and talk in a balanced way	___/ 4
				Total	___/ 24

Table 1 – Group work assessment

During work presentation, teacher can assess several competences, namely knowledge, reasoning and communication:

1. Scientific correction (Knowledge);
2. Arguments justification (reasoning);
3. Language correction; coordination among group members; clarity and objectivity of communication; ability with raising engagement; audiovisual support quality; creativity; time management; voice tune (communication)

This task assessment can be based on a student assessment tool, presented next (Table 2).

	1	2	3	4	Pontos
Correct use of scientific concepts or information	Group incorrectly uses scientific concepts or information, on several occasions	Sometimes, group incorrectly uses scientific concepts or information	Group correctly uses scientific concepts or information	Group's presentation mirrors a proficiency use of scientific concepts or information	___/ 4
Arguments' justification	Group elements can not defend some aspects of their work. They lack adequate knowledge or abilities	Many elements of the group have poor knowledge about the group work content OR they are not able to defend exposed arguments	Most elements of the group have an adequate knowledge about the group work content and can defend exposed arguments	All elements of the group have a deep knowledge about the group work content and can defend exposed arguments	___/ 4
Language use	Poor language use, presenting grammatical and pronunciation mistakes and incorrect use of scientific concepts	Some grammatical and pronunciation mistakes and sometimes incorrect use of scientific concepts	Adequate language use, with no grammatical or pronunciation mistakes. Correct use of scientific concepts	Rich and complex language use, with no grammatical or pronunciation mistakes. Correct use of scientific concepts	___/ 4
Coordination among group elements	There is no coordination among group elements. Unstructured group presentation	Poor coordination among group elements. Some of them did not work on the group presentation	Good coordination among most group elements. However, some of them did not work on the group presentation with the others	Excellent coordination among all group elements. Well structured presentation. It follows a coherent line	___/ 4
Clarity and objectivity	Presentation lacks clarity and objectivity. It does not make salient most important issues	Clear presentation, but it lacks objectivity. Many non relevant details presented	Clear presentation, but based on some non relevant details	Clear and objective presentation, making salient most important issues	___/ 4
Information	Group elements read	Group elements read	Group elements	Group elements	___/ 4

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presentation	the information instead of exposing it	most of the information instead of exposing it	expose information but also read some additional notes	expose information	
Ability with raising engagement	Poor presentation unable to keep peers engaged with it	Poor presentation, not always being able to keep peers engaged with it	Some hazard situations during presentation. Nevertheless, it is able to keep peers engaged with it	Well trained presentation. It can keep peers engaged with it.	___/ 4
Audiovisual support	Presentation does not make use any audiovisual element to support it or to make salient any content or idea (pictures, graphics, videos)	Presentation makes use of some poor audiovisual elements	Presentation makes use of some quality audiovisual elements, but those are not fully explored	Presentation makes use of quality audiovisual elements to support it or to make salient any content or idea (pictures, graphics, videos)	___/ 4
Creativity	Presentation lacks creativity in what concerns used methodology or used materials	Use of few creative methodological elements and few creative materials	Use of many creative methodological elements and some creative materials	Creative presentation in what concerns used methodology or used materials	___/ 4
Time management	Presentation does not respects at all planed time limits (either too short or too extended)	Presentation extends considerably over planed time limits	Presentation extends a little over planed time limits	Excellent time management	___/ 4
Voice tune	Low voice tune. Monotonous. No inflexions or expressivity	Big oscillations on the voice tune. Nevertheless it lacks expressivity	Good voice tune during most time of the presentation. Presents inflexion and expressivity	Good voice tune during presentation. Good coordination between voice and audiovisual supports use	___/ 4
Total					___/ 48

Table 2– Group’s presentation assessment

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