Task O3/A2

REPORT ON IT QUALITY ASSESSMENT OF OER

Contents

1. INTRODUCTION

This report is included in the task *"O3-A2. Report on IT quality assessment of OER"*, corresponding to Intellectual Output 3 "*OER for training and raising awareness*" of the NanoSafe project.

DNV and CTM arranged the testing of the content of the animations and ICT Products in stone industries, to produce an external assessment. This report was considered very important from different aspects, because the external evaluation was both from a technical content and pedagogical approach and from an IT quality point of view.

A final report was carried out compiling all conclusions of the IT quality assessment and the IT improvements that have been implemented in the OER and the 3D Training Tool where the 3D animation safety training environment is hosted.

The questionnaire for the evaluation of the OER and the 3D training Tool of the NanoSafe project was answered by some teachers and professionals from technical and pedagogical network and associated companies to CTM and DNV. With the answers from each location, the final report was compiled.

2. RESULTS IN THE IT QUALITY ASSESSMENT OF OER BY CTM

The survey on the IT quality assessment of OER was answered by 12 people, of which 75% were professional of the sector and 25% professors, as can be seen in the graph below (Fig. 1):

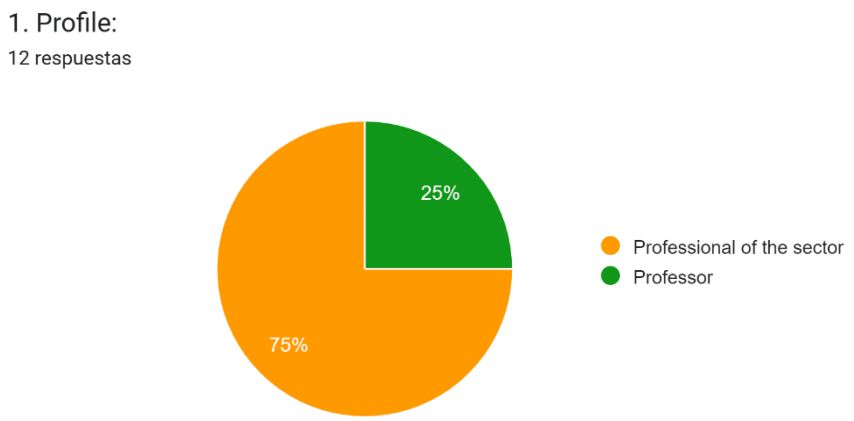

Figure 1. Graph showing the profile of respondent. In yellow, professional of the sector; in green, professors.

To the question about the general satisfaction with the OER (Fig. 2), the responses were positive, with 8 people (66.7%) who were very satisfied (score 5) and 4 people who were rather satisfied (score 4, 33.3% of the total).

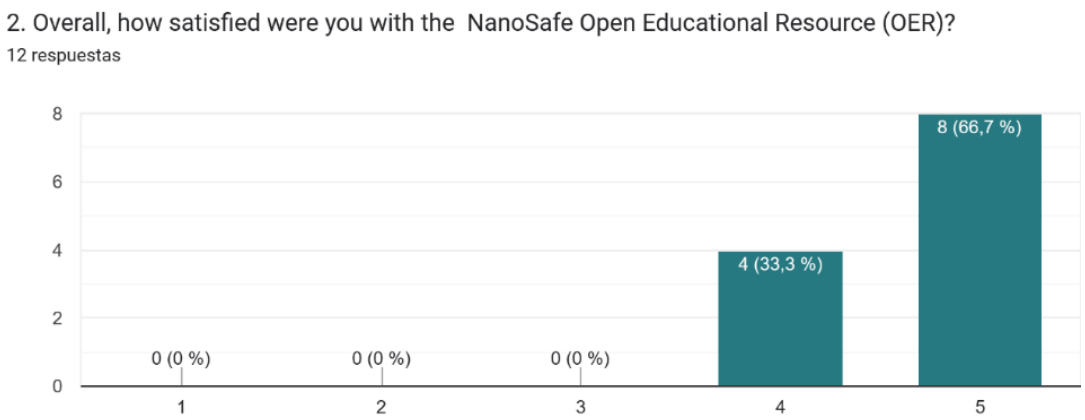

Figure 2. Graph showing the score on the degree of satisfaction with the OER.

In the case of satisfaction with the 3D NanoSafe tool (Fig.3), responses were also positive, with scores ranging from 5 (9 people, 75% of respondents) to 4 (3 people, 25% of respondents).

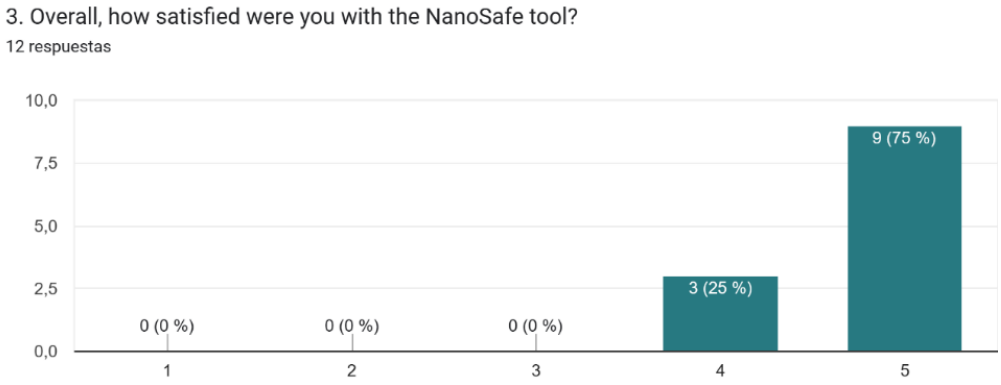

Figure 3. Graph showing the score on the degree of satisfaction with the NanoSafe Tool

In the next question of the survey, a series of attributes and response options ranging from "strongly disagree" to strongly agree were displayed to score the OER of the NanoSafe project (Fig. 4):

4. To what extent do the OER show the following attributes? *

	Fully disagree	Rather disagree	Neither agree nor disagree	Rather agree	Fully agree
Contents were clearly understandable	○	○	○	○	○
The OER is well-organised and well-structured.	○	○	○	○	○
The OER is user-friendly.	○	○	○	○	○
In general, the OER is suitable for self-learning in relation to improving technification, safe production and use of nanomaterials in stone sector	○	○	○	○	○
The content is technically useful for professionals in the sectors involved in the project.	○	○	○	○	○
It is easy to navigate through the different sections of the OER.	○	○	○	○	○
NanoSafe Tool evaluation has an easy access from the website of the project	○	○	○	○	○

Figure 4. Attributes to rate from question 4 of the survey.

The responses can be seen in Fig. 5:

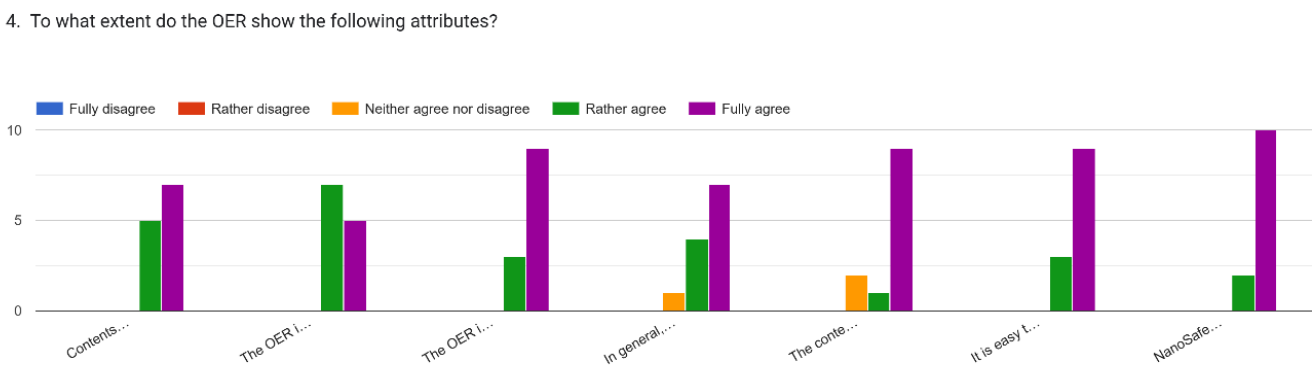

Figure 5. Graph showing respondents' responses to the proposed attributes of the OER.

In general, it is observed that the majority of people, in all the attributes proposed by the survey, say that they are “fully satisfied”, with the exception of the question on the good structure and

good organisation of the OER, where there is a majority of people who answer that they are "mostly satisfied". On the other hand, in the question about whether the OER favours self-learning, we observe that one person neither disagrees nor disagrees. In the question about whether the contents are useful for professionals in the sector, we also observed 3 people with this opinion. However, in general terms, the answers are mostly positive.

In the next question of the survey, a series of attributes and response options ranging from "strongly disagree" to strongly agree were displayed to score the NanoSafe *Tool (Fig. 6):*

5. Interactive NanoSafe Tool evaluation. *

	Totally disagree	Disagree	Neither disagree nor agree	Agree	Totally agree
The NanoSafe tool is well-structured	○	○	○	○	○
The NanoSafe tool is easy to use	○	○	○	○	○
The design of the NanoSafe tool environment is detailed enough to understand the topics	○	○	○	○	○
The NanoSafe tool handbook was helpful and provided all the information it should	○	○	○	○	○
It is easy to navigate through the different sections of the NanoSafe tool	○	○	○	○	○
The NanoSafe tool interface is easy to understand and motivating	○	○	○	○	○
The NanoSafe tool runs smoothly	○	○	○	○	○
The NanoSafe tool met my expectations	○	○	○	○	○
Programming of the NanoSafe tool is correct	○	○	○	○	○
Would you recommend NanoSafe tool from the point of view of its proper technical development?	○	○	○	○	○

Figure 7. Attributes to rate from question 5 of the survey.

The responses can be seen in Fig. 7:

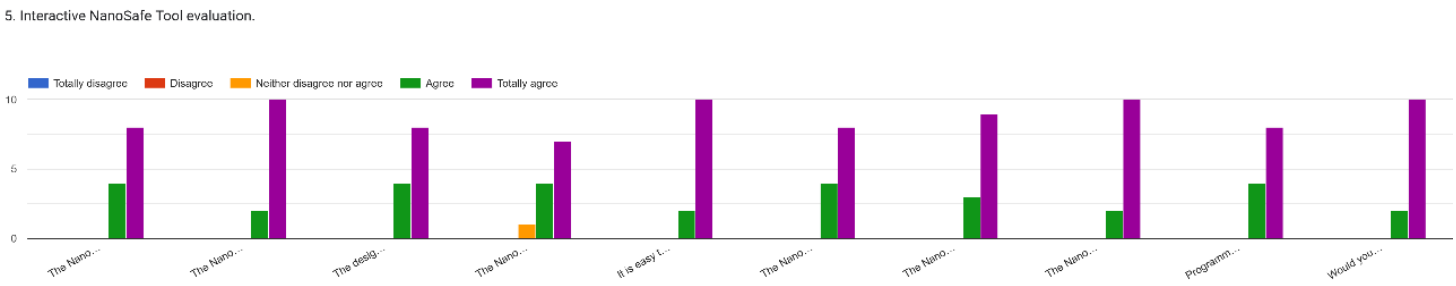

Figure 8. Graph showing respondents' responses to the proposed attributes of the NanoSafe Tool.

As can be seen, in all questions about the project tool, there was a majority of responses showing that the respondents were “Fully agree” with the positive statements proposed. Those who did not, in all cases felt that they "mostly agreed" with the proposal, with the exception of the question about the usefulness of the handbook, where one person neither agreed nor disagreed. Overall, most responses were positive.

3. RESULTS IN THE IT QUALITY ASSESSMENT OF OER BY DNV

The survey on the IT quality assessment of OER was answered by 13 people, of which 53,8% were professional of the sector and 46,2% professors, as can be seen in the graph below (Fig. 1):

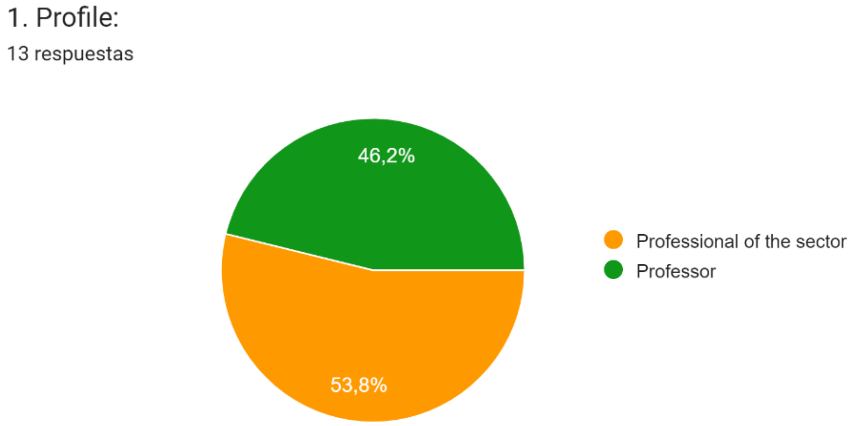

Figure 9. Graph showing the profile of respondent. In yellow, professional of the sector; in green, professors.

To the question about the general satisfaction with the OER (Fig. 10), the responses were positive, with 8 people (61.5%) who were very satisfied (score 5) and 4 people who were rather satisfied (score 4, 38.5% of the total).

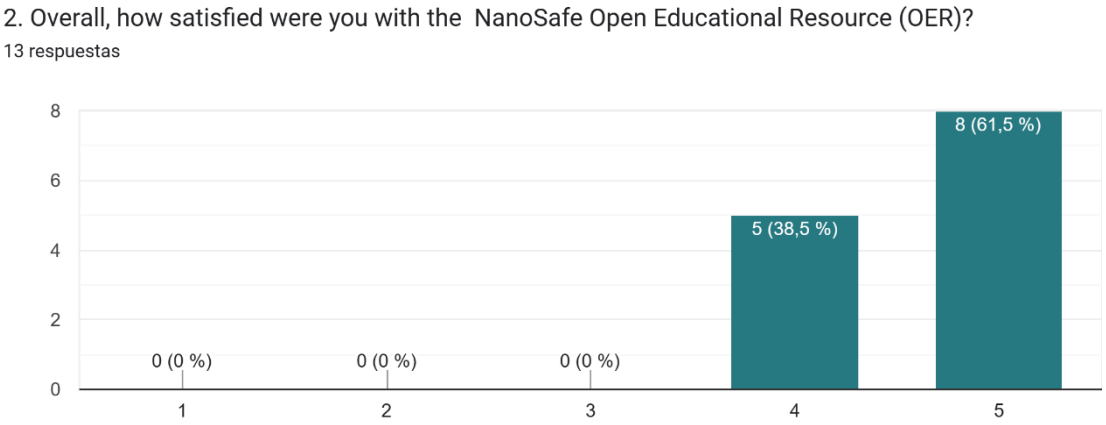

Figure 10. Graph showing the score on the degree of satisfaction with the OER.

In the case of satisfaction with the 3D NanoSafe tool (Fig.11), responses were also positive, with scores ranging from 5 (8 people, 61.5% of respondents) to 4 (5 people, 38.5% of respondents).

3. Overall, how satisfied were you with the NanoSafe tool?

13 respuestas

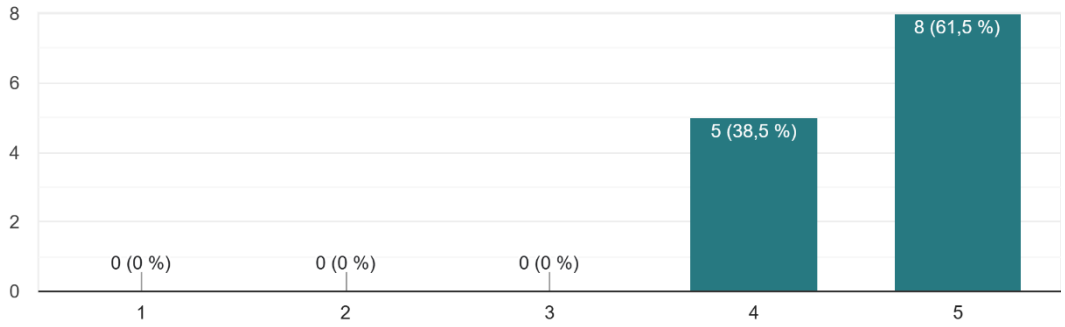

Figure 11. Graph showing the score on the degree of satisfaction with the NanoSafe Tool

In the next question of the survey, a series of attributes and response options ranging from "strongly disagree" to strongly agree were displayed to score the OER of the NanoSafe project (Fig. 12). These were the same as those proposed in the survey conducted by CTM:

4. To what extent do the OER show the following attributes? *

	Fully disagree	Rather disagree	Neither agree nor disagree	Rather agree	Fully agree
Contents were clearly understandable	○	○	○	○	○
The OER is well-organised and well-structured.	○	○	○	○	○
The OER is user-friendly.	○	○	○	○	○
In general, the OER is suitable for self-learning in relation to improving technification, safe production and use of nanomaterials in stone sector	○	○	○	○	○
The content is technically useful for professionals in the sectors involved in the project.	○	○	○	○	○
It is easy to navigate through the different sections of the OER.	○	○	○	○	○
NanoSafe Tool evaluation has an easy access from the website of the project	○	○	○	○	○

Figure 12. Attributes to rate from question 4 of the survey.

The responses can be seen in Fig. 13:

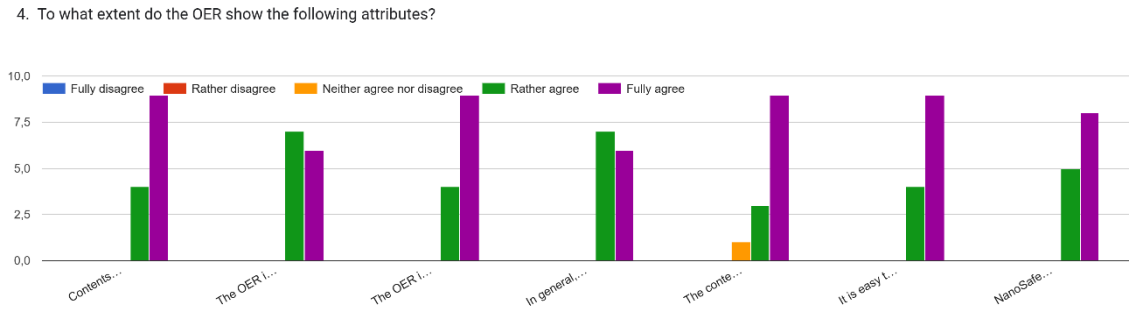

Figure 13. Graph showing the responses to the OER attributes proposed in the survey.

In general, it is observed that the majority of people, in all the attributes proposed by the survey, say that they are “fully satisfied”, with the exception of the question on the good structure and good organisation of the OER and the question about whether the OER favours self-learning, where there is a majority of people who answer that they are "mostly satisfied". On the other hand, in the question about whether the contents are useful for professionals in the sector, we observed one person neither disagrees nor disagrees. In general terms, the answers are mostly positive.

In the next question of the survey, a series of attributes and response options ranging from "strongly disagree" to strongly agree were displayed to score the NanoSafe Tool (Fig. 14). These were the same as those proposed in the survey conducted by CTM:

5. Interactive NanoSafe Tool evaluation. *

	Totally disagree	Disagree	Neither disagree nor agree	Agree	Totally agree
The NanoSafe tool is well-structured	○	○	○	○	○
The NanoSafe tool is easy to use	○	○	○	○	○
The design of the NanoSafe tool environment is detailed enough to understand the topics	○	○	○	○	○
The NanoSafe tool handbook was helpful and provided all the information it should	○	○	○	○	○
It is easy to navigate through the different sections of the NanoSafe tool	○	○	○	○	○
The NanoSafe tool interface is easy to understand and motivating	○	○	○	○	○
The NanoSafe tool runs smoothly	○	○	○	○	○
The NanoSafe tool met my expectations	○	○	○	○	○
Programming of the NanoSafe tool is correct	○	○	○	○	○
Would you recommend NanoSafe tool from the point of view of its proper technical development?	○	○	○	○	○

Figure 14. Attributes to rate from question 5 of the survey.

The responses can be seen in Fig. 15:

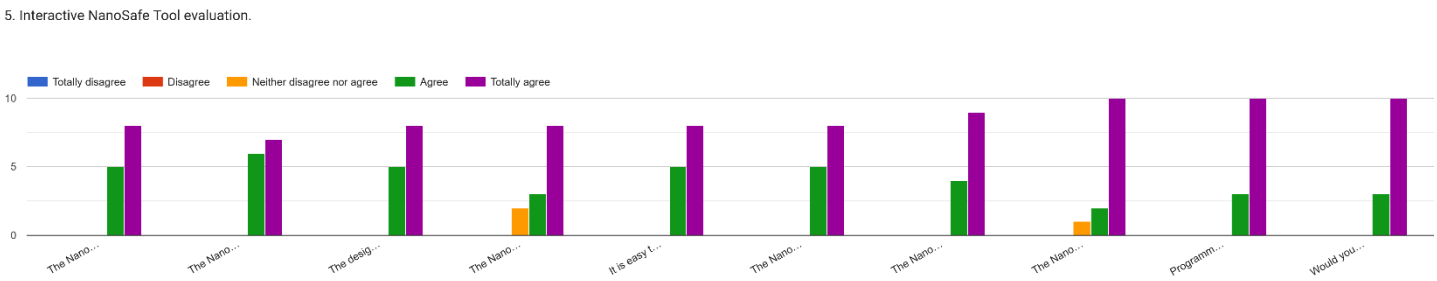

Figure 15. Graph showing respondents' responses to the proposed attributes of the NanoSafe Tool.

As can be seen, in all questions about the project tool, there was a majority of responses showing that the respondents were “Fully agree” with the positive statements proposed. Those who did not, in all cases felt that they "mostly agreed" with the proposal, with the exception of the question about the usefulness of the handbook and the question of whether the tool met expectations, in which two people and one person, respectively, answered that they were neither agreed nor disagreed. Again, the majority of responses were very positive.

4. CONCLUSIONS

The external evaluation carried out in this task on the evaluation of the IT quality of the OER, has allowed testing two of the main products of the NanoSafe project, the OER and the 3D tool, on professionals and teachers of the stone industry sector. From a technical point of view, it is very important to know the opinion of the people in the sector and to verify if the information is complete and up to date. On the other hand, from the pedagogical point of view, it has allowed to check if the materials are understandable and useful for the profile of people to whom the products of the project are addressed.

As has been commented throughout the report, the responses of the participants of the surveys carried out by CTM and DNV, have always been mostly positive, both regarding the OER and the tool. This has served to evaluate the functioning of the products created in the project and to check that they work correctly. On the other hand, although few, the responses that, for example, neither agree nor disagree with some aspects of the products evaluated, have served to improve those aspects of the OER, the tool or the handbook, so that they are even more understandable and useful for the target audience of the project.