

6. Conclusions

These results seem to confirm our hypothesis since we found that the proposed intervention improved significantly pupils' performance in all areas. Pupils were able to provide more accurate explanations closer to the scientific ones. These results are in accordance with other studies [8, 9], who argue that this understanding of phenomena that cannot be observed helps pupils consolidate their understanding of matter.

With regard to the attitudes questionnaire, several factors were tested: interest, anxiety, difficulty and understanding. Pupils were asked to answer the questions based on the scale: 1. I strongly disagree, 2. I disagree, 3. I agree, 4. I strongly agree. To avoid random answers, there were also inverse questions (eg the lesson was interesting, the lesson was boring). The last question asked pupils to answer whether they would like to use relevant software in other lessons.

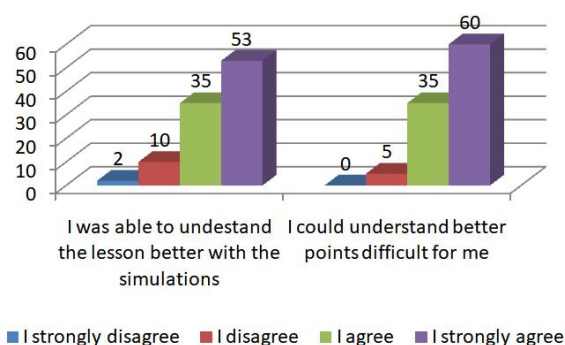


Figure 5. Pupil's opinions about the use of the software

The analysis of the attitudes questionnaire (as well as the in situ observation) revealed the positive response of the pupils, who were very enthusiastic with the application and did not face particular difficulties, as it can be seen most clearly in figure 5. Moreover all of the pupils answer that they would like to use relevant software in other lessons.

7. Future Scope

Based on the evaluation and the results of the current study we are already finished developing more phenomena including molecule structure, photons, and dissolution and mix of liquids.

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