

## Report on the Results gathered from the Evaluation Questionnaire for Prospective Teachers (Turkey)

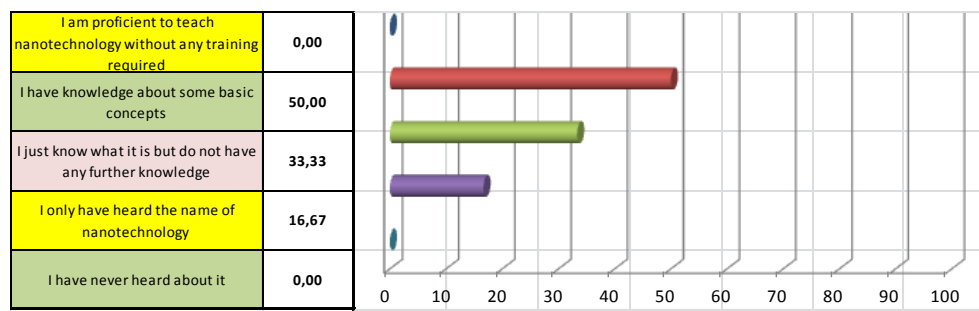
Number of questioned students: 6- June 2011.

Questionnaire data processed by: Cafer Arkan-Doga Schools (Turkey) – June 2011

### Question no. 1:

How would you describe your knowledge about nanotechnology?

Results diagram is presented below:

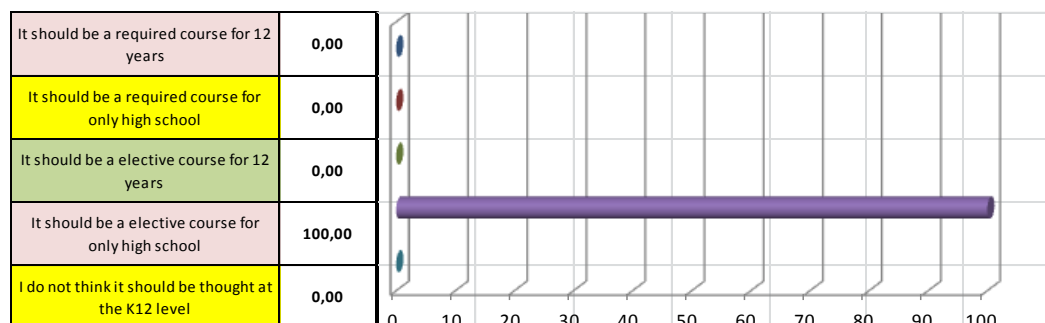


- % 50 of the prospective teachers consider that they have basic knowledge about nanotechnology.
- %33,33 of the prospective teachers thinks that they know what it is.
- % 16,67 of the prospective teachers only heard the name of nanotechnology.

### Question no. 2:

What do you think about teaching the emerging sciences (i.e nanotechnology) to K12 students?

Results diagram is presented below:

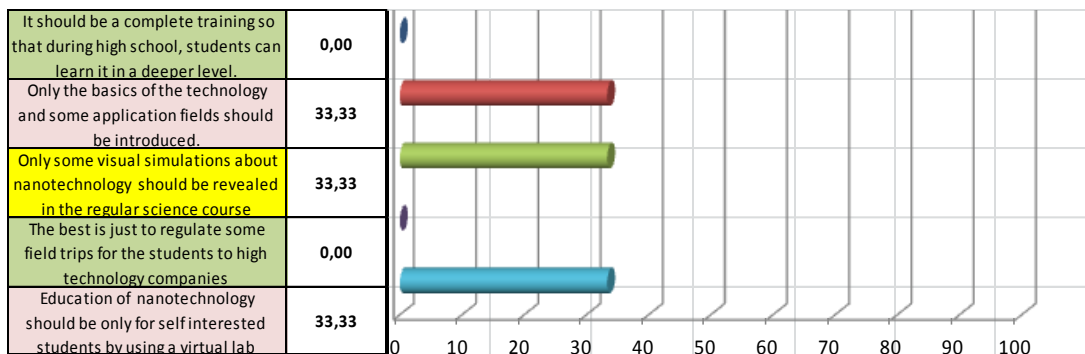


- % 100 of the prospective teachers consider that the emerging sciences like nanotechnology should be an elective course for only high school.

**Question no. 3:**

**If nanotechnology is thought what should be the level for elementary school students?**

Results diagram is presented below:

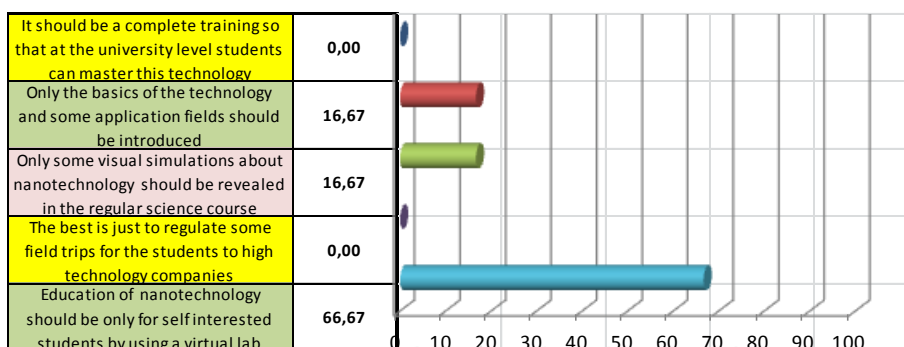


- %33,33 of the prospective teachers believe that only that the basics of nanotechnology should be introduced to elementary school students.
- % 33,33 of the prospective teachers believe that only some visual simulations about nanotechnology should be revealed in the regular science course.
- % 33,33 of the prospective teachers believe that education of nanotechnology should be only for self-interested students by using a virtual lab.

**Question no. 4:**

**If nanotechnology is taught what should be the level for high school students?**

Results diagram is presented below:



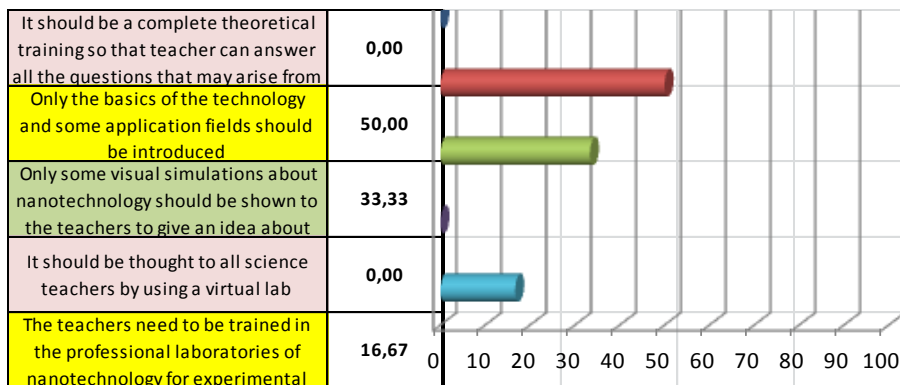
- % 66,67 of the prospective teachers consider that education of nanotechnology should be only for self-interested students by using a virtual lab.
- % 16,67 of the prospective teachers consider that only some visual simulations about nanotechnology should be revealed in the regular science course.

- % 16,67 of the prospective teachers consider that only the basics of the technology and some application fields should be introduced.

**Question no. 5:**

**If nanotechnology is taught to the science teachers what would be the level?**

Results diagram is presented below:

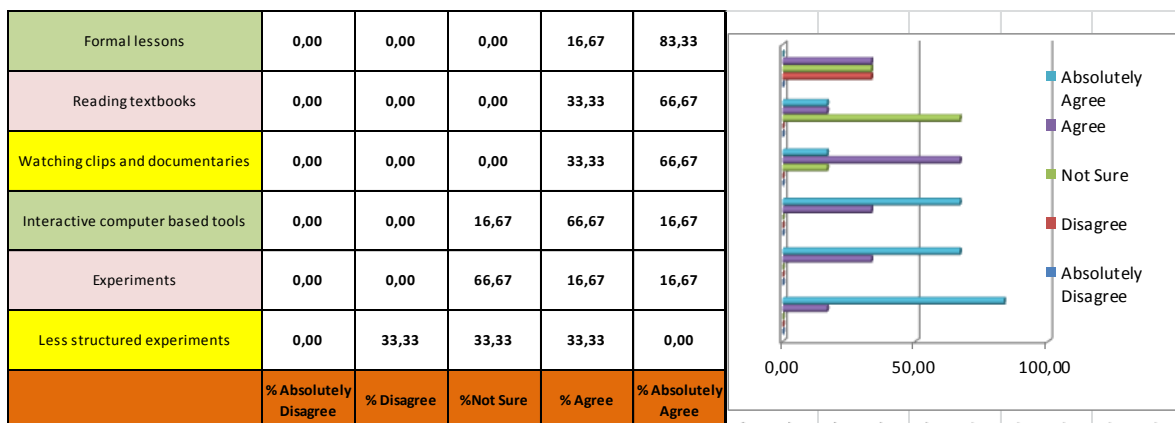


- Half (%50) of the prospective teachers believe that only the basics of the technology and some application fields should be introduced.
- %33,33 of the prospective teachers believe that only some visual simulations about nanotechnology should be shown to the teachers to give an idea about this science.
- % 16,67 of the prospective teachers believe that the teachers need to be trained in the professional laboratories of nanotechnology for experimental experience and theoretical knowledge.

**Question no. 6:**

**The most effective way to teach a scientific topic in general is:**

Results diagram is presented below:

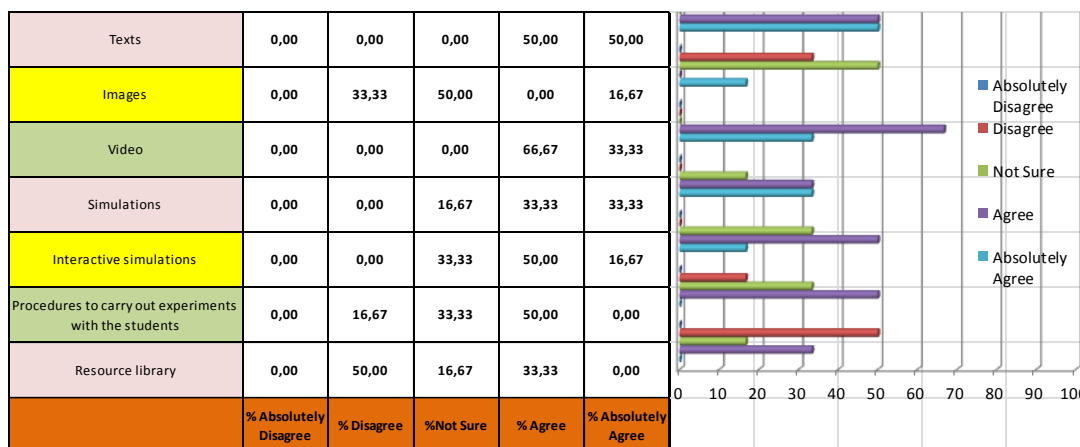


- % 83,33 of the prospective teachers believe that formal lessons are the most effective way to teach a scientific topic.
- % 66,67 of the prospective teachers believe that reading text books is another effective way.
- % 66,67 of the prospective teachers believe that watching clips and documentaries is the most effective way to teach a scientific topic.

**Question no. 7:**

**Do you think the following tools are important for an online virtual lab?**

Results diagram is presented below:

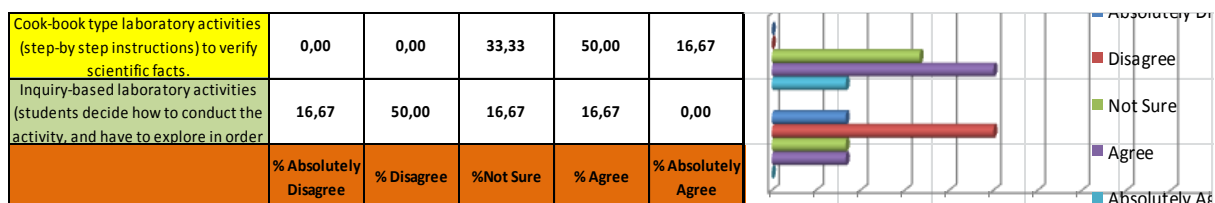


- % 66,67 of the prospective teachers agree that videos are important for visual lab.
- % 50 of the prospective teachers strongly agree that texts are important for an online virtual lab.
- % 50 of the prospective teachers agree that interactive simulations and procedures to carry out the experiments with students are important.

**Question no. 8:**

**Which type of lab approach do you think is better?**

Results diagram is presented below:

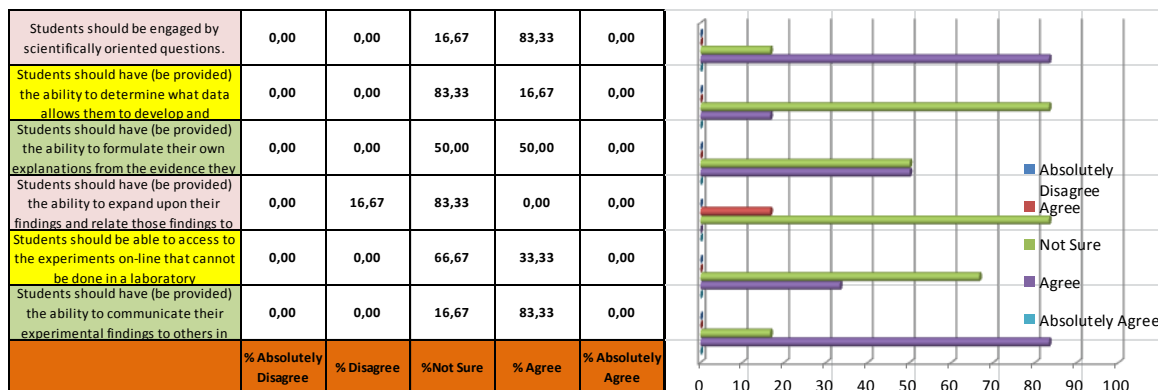


- % 50 of the prospective teachers agree that cook book type laboratory activities are better.
- %50 of the prospective teachers disagree that inquiry based laboratory activities are better.

**Question no. 9:**

**The regarding activities in a laboratory would be;**

Results diagram is presented below:

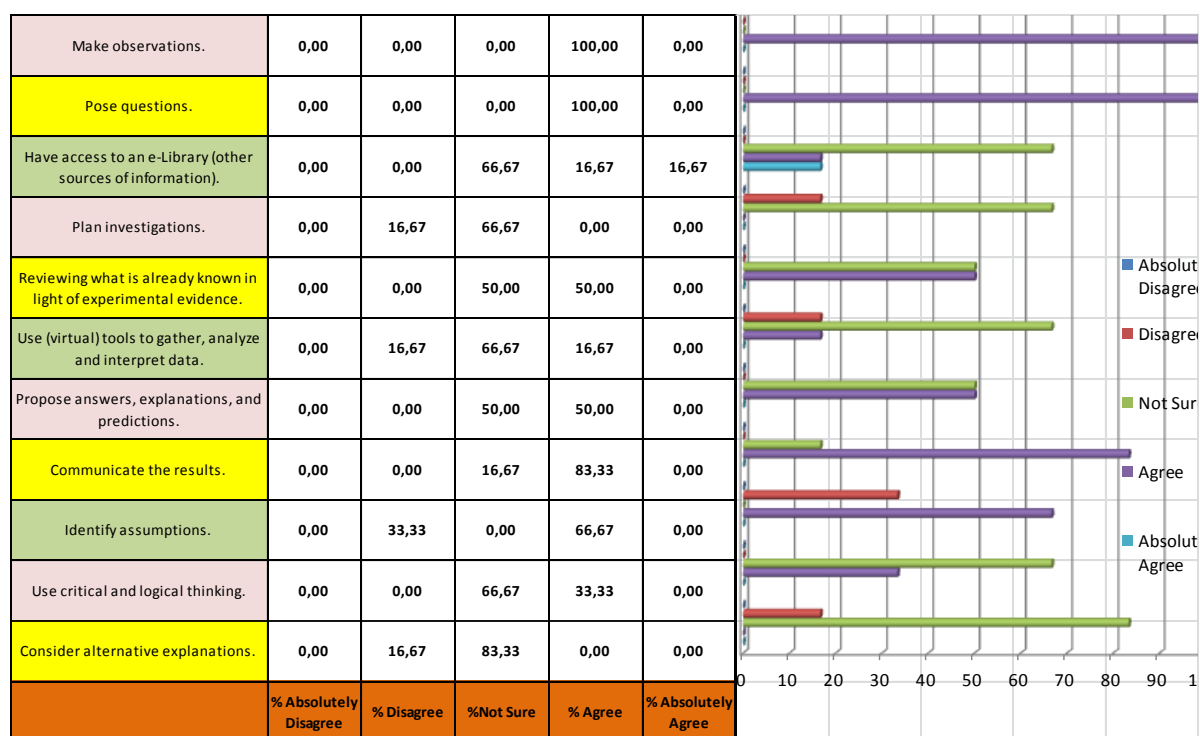


- % 83,33 of the prospective teachers agree that students should be engaged by scientifically oriented questions and students should have (be provided) the ability to communicate their experimental findings to others in class via written laboratory reports.
- % 83,33 of the prospective teachers are not sure whether students should have (be provided) the ability to expand upon their findings and relate those findings to similar situations or students should have (be provided) the ability to determine what data allows them to develop and evaluate scientific explanations.

**Question no. 10:**

**If you were to create your own laboratory, the students should be able to:**

Results diagram is presented below:

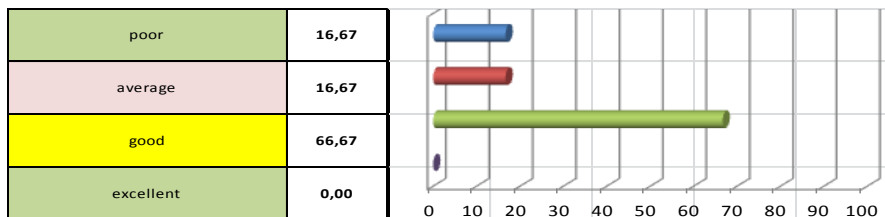


- %100 of the prospective teachers agree that students should be able to make observations and pose questions.
- % 83,33 of the prospective teachers agree that students should be able to communicate the results.
- % 66,67 of the prospective teachers agree that students should be able to identify assumptions.

**Question no. 11:**

**To what extent do you know to use ICT tools for teaching Science/Nano-Tech topics?**

Results diagram is presented below:

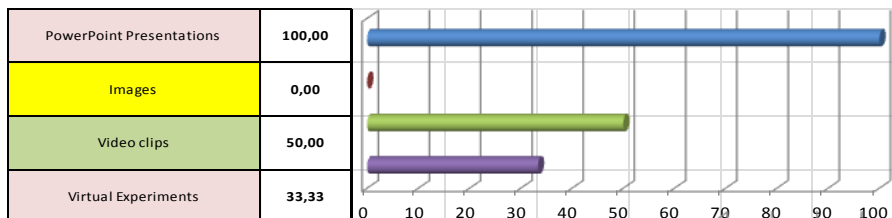


- % 66,67 of the prospective teachers are good in using the ICT tools for teaching science/nano topics.

**Question no. 12:**

**Which kind(s) of ICT tools do you intend to use for leading nano-tech experiments in your future lessons?**

Results diagram is presented below:

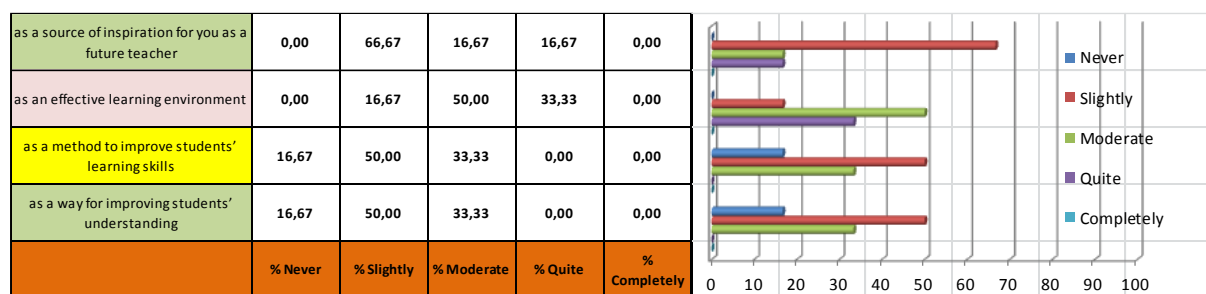


- %100 of the prospective teachers intend to use power point presentations to lead the nanotech activities.
- % 50 of the prospective teachers intend to use video clips for leading nanotech experiments.

**Question no. 13:**

**Evaluate (on a scale from 1 to 5) how important are ICT tools for you when considering their usefulness for teaching Science/Nano-Tech topics?**

Results diagram is presented below:



- % 33,33 of the prospective teachers believe that ICT tools are quite important when teaching science/nano topics.

**Question no. 14:**

**Evaluate (on a scale from 1 to5) how important are ICT tools for you related to the promoting of inquiry based/creative learning about Science/Nano-Tech topics?**

Results diagram is presented below:



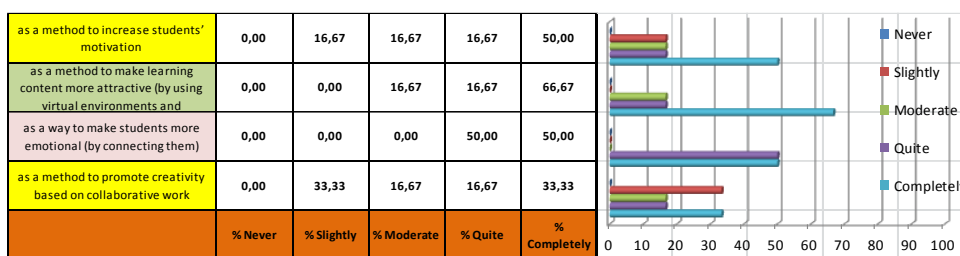
- % 33,33 of the prospective teachers believe that ICT tools are quite important as a method to explain the "Inquiry Based Science Education" concept.
- % 33,33 of the prospective teachers believe that ICT tools are quite important as a way for better planning of an experiment.



**Question no. 15:**

**Evaluate (on a scale from 1 to 4) how do you consider collaboration using ICT for teaching Science/Nano-Tech topics?**

Results diagram is presented below:

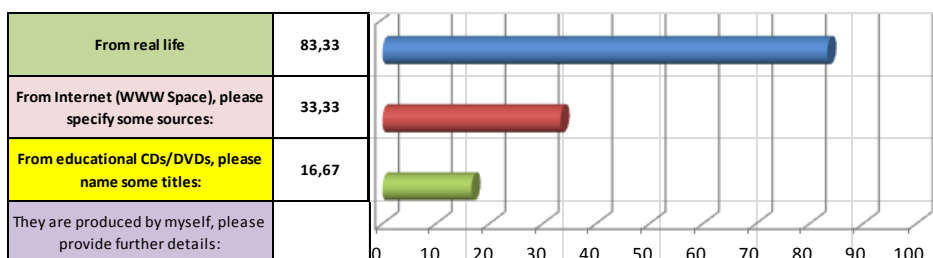


- % 66,67 of the prospective teachers consider collaboration using ICT for teaching Science/Nano-Tech topics as a method to make learning content more attractive (by using virtual environments and multimedia tools).
- % 50 of the prospective teachers consider collaboration using ICT for teaching Science/Nano-Tech topics as a method to increase students' motivation as well as a way to make students more emotional (by connecting them).

**Question no. 16:**

**From where do you find examples for the Nano-Tech experiments for your preparation?**

Results diagram is presented below:



- % 83,33 of the prospective teachers find examples for the Nano-Tech experiments for their preparation from real life.