



High School Teachers at CERN



ALUMNI REPORT FOR HST 2003

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- I. Analysis of responses from former HST participants
- II. Observations on the present state of the HST programme and recommendations for future development



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I. Analysis of former HST programmes

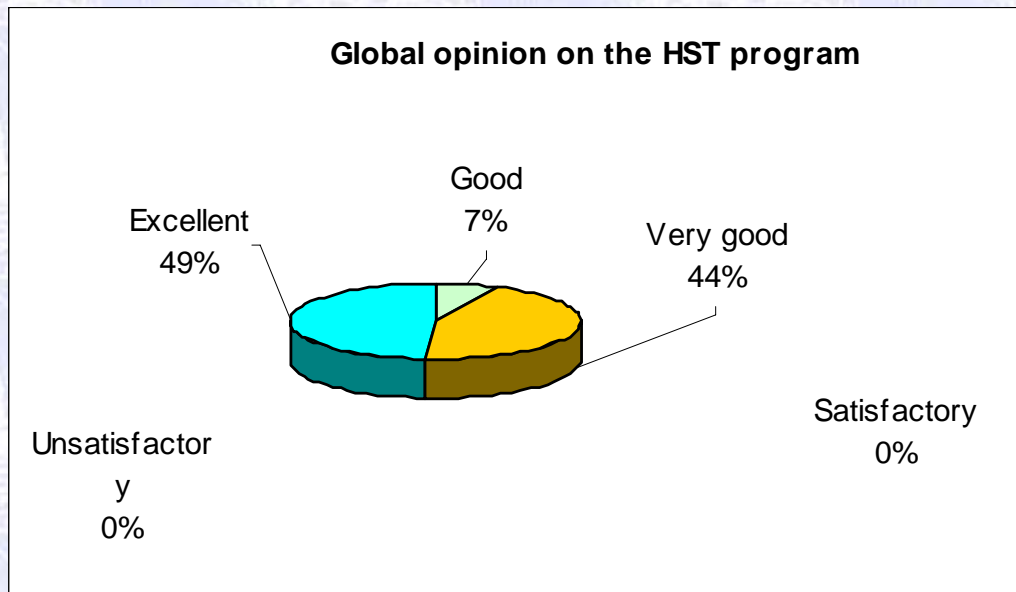
- is based on a questionnaire which was passed to all 112 teachers who attended HST in the past
- 40% of the interrogated teachers responded
- **Many questions have given us insight into the impact of the HST programmes at several levels**



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1. Global opinion of former participants on the HST-programme

The feelings about the programme were very positive.



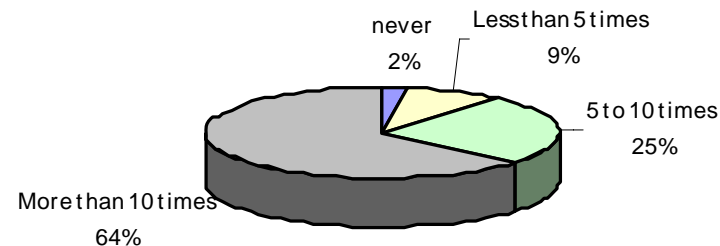


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2.1. Impact of the programme at the personal level:

- More than 90% of these teachers mention their HST experience regularly in their schools.
- For CERN this is an important way of doing outreaching.

How many times did you mention your visit in your class.

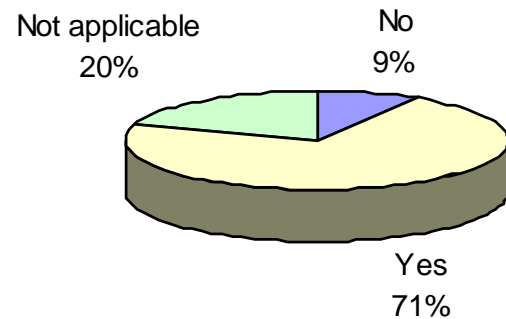




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- The majority found the HST programme to have a significant impact on their professional approach.
- 71 % said they were more motivated after the HST experience

Were you more motivated to teach after your HST stay?

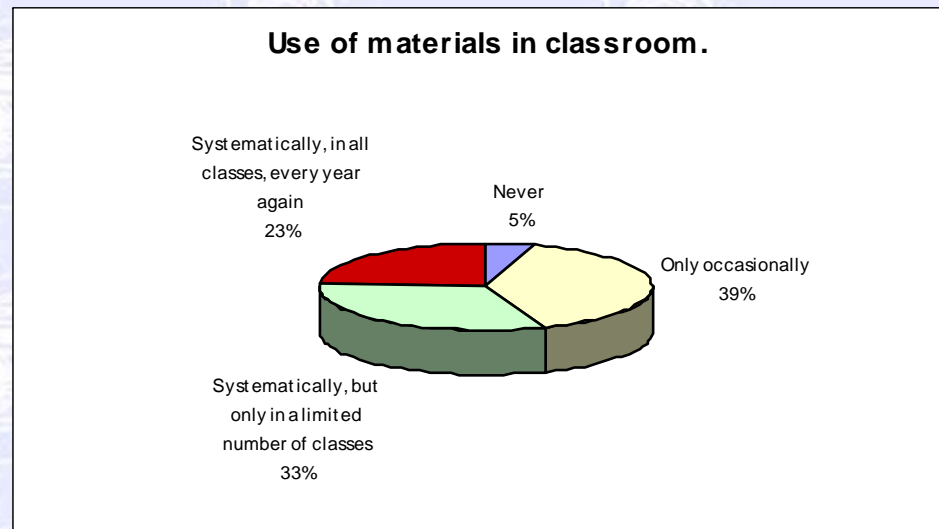




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2.2. Impact of the programme at the classroom level:

- More than 50% of these HST respondents use Cern based materials on a regular basis in their classroom.
- 40% reported they use the materials only occasionally as particle physics is not always part of the curriculum

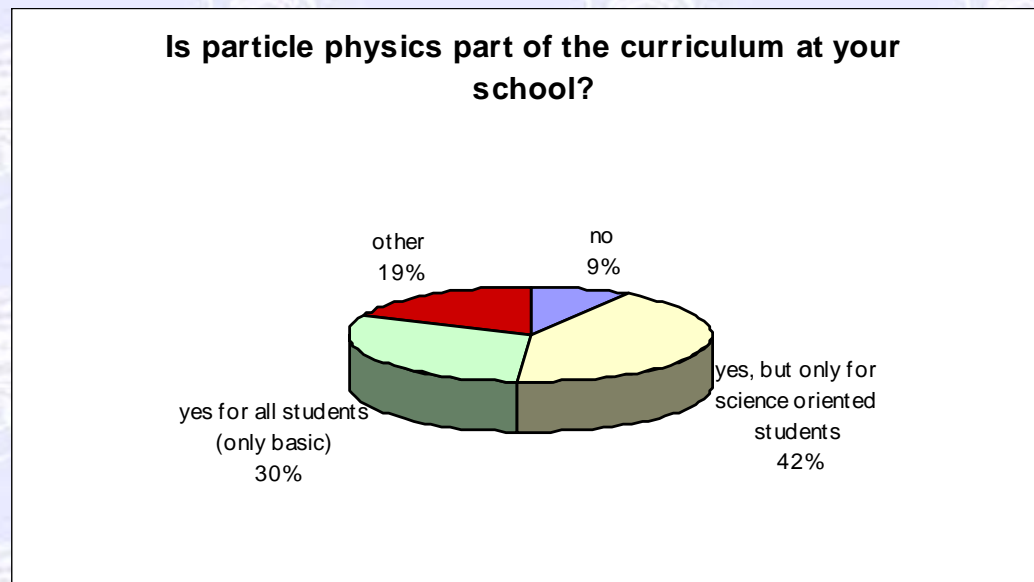




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2.3. Impact of the programme on the local (school) level:

- It was reported that about 70% of the schools have some particle physics on the curriculum
- Several teachers changed the curriculum in that way

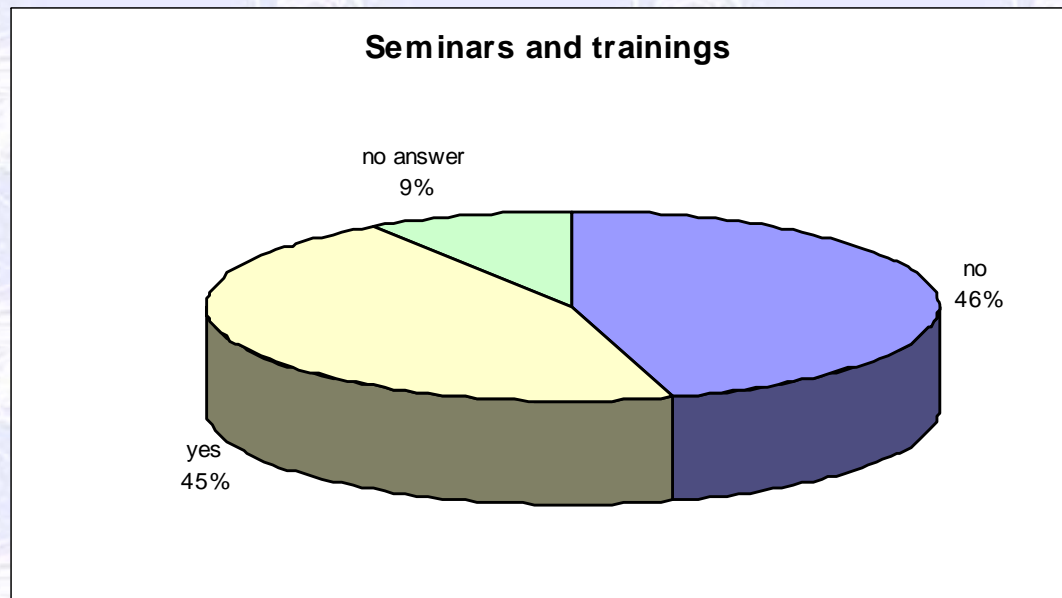




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2.4. Impact of the programme at the regional level:

- A significant proportion of the respondents has taken initiatives in doing training sessions for colleagues of other schools
- This links well with the goal to stimulate activities related to popularization of Physics within and beyond the classroom





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2.5. Impact of the programme at the national level:

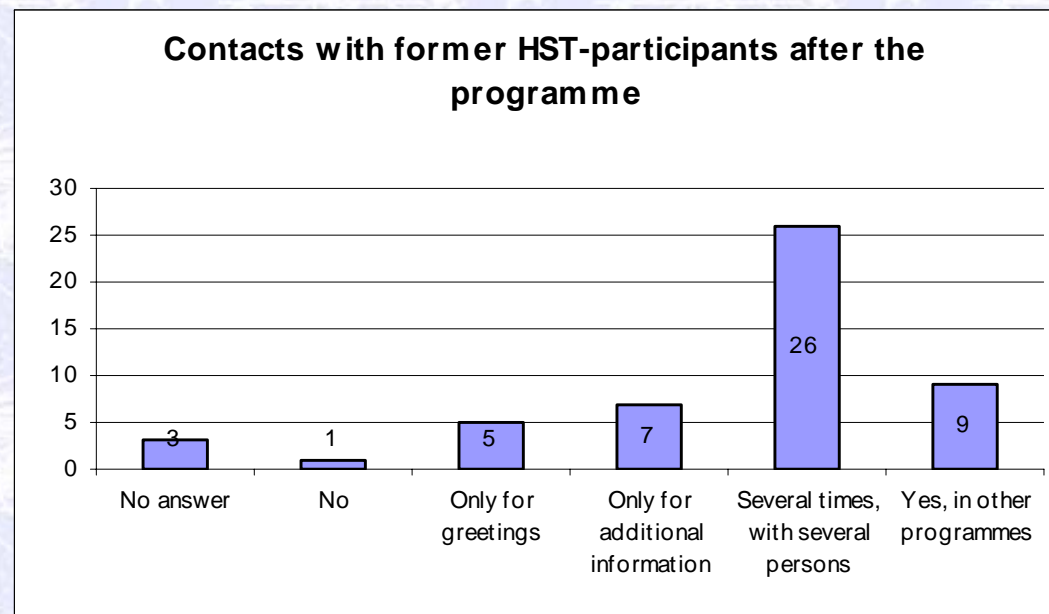
- Open responses to a number of questions indicated that many former HST participants increased their activities at a national level.
- The HST programme certainly achieves the goal of promoting the teaching of physics, more in particular particle physics, in High Schools.



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2.6. Impact of the programme at the international level:

- The HST programme has a significant effect on stimulating intercultural contact and participation in international EU-programmes as well as driving the development of an extensive active network of physics teachers



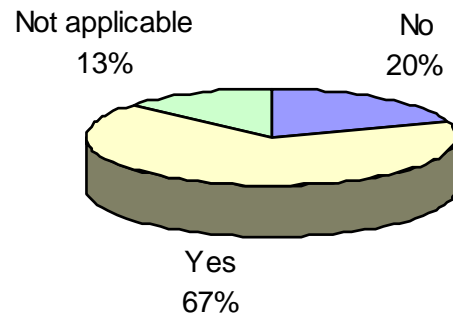


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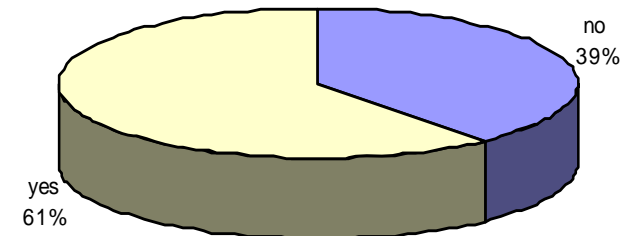
3. Continuing involvement with the HST programme

- HST participants continued to develop and share particle physics and HST related material on returning home
- They developed particle physics websites, revised and translated the cartoon booklet 'The World of Particles', they worked on revising and translating the CD 'Particle Physics, a Keyhole to the Birth of Time, produced games on particle physics, authored or translated leaflets on the subject, etc.

Translation and adaption of Cern materials done by HST-participants at home



Did you produce new materials after your HST visit?





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- It might be considered arranging for one or two teachers to be in charge of the follow up of the programme permanently, consolidating unfinished materials, gathering and spreading information about forthcoming new materials from formal participants, disseminating teaching strategies etc.
- It might be useful if the follow up teachers were linked to a CERN physicist to have access to academic support.



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II. Observations on the present state of the HST programme and recommendations for future development

1. Lectures
2. Working groups and discussion sessions
3. Number of participants
4. Site visits
5. Website and materials
6. Social activities



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7. Proposals for possible further developments of the current HST programme
 - The development of a school level experiment laboratory .
 - Arranging for the HST participants to make contact at CERN, if possible, with scientists from their own countries.
 - Formalise the collection of feedback about the programme by issuing a questionnaire at the end of the programme with a follow up questionnaire approximately nine months later.
 - Arranging for one or two teachers to be in charge of the follow up of the programme permanently.
It would be useful if the follow up teachers were linked to a CERN physicist to have access to academic support.



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8. Proposals for possible further developments, aimed towards teachers, beyond the current HST programme

- One programme aimed at former HST participants to enable them to evaluate and exchange experiences.
- A programme aimed at a larger group of teachers selected from different countries.

It would build on the experience developed at the 3 week HST programme and be aimed at developing understanding of basic aspects of particle physics and the work of CERN.



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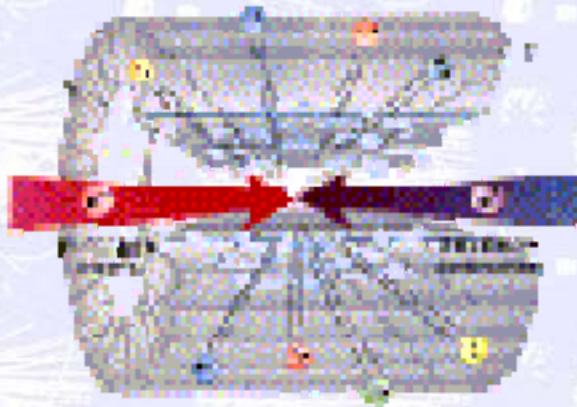
9. Proposals for a possible further development, aimed towards students and linked to the HST programme
 - It is suggested that CERN considers working with the HST participants to establish a project that would bring together selected groups of students from different countries to visit CERN.
 - It is recommended that an application be made to the EU



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The proposals listed would have positive effects at all levels of the education system as categorised in the first part of the report.

Thanks for collaborating
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