Astronauts Came to My School

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Abstract

On February 16, 1998, we invited Dr. Jan Davis and Colonel Mark Lee, two of NASA’s astronauts, to our school. We had a chance to receive a lesson. It was very interesting to meet real astronauts, who are also real astronomers. Mr. Agata had the 120 students in the class complete a questionnaire before and after the lecture. This paper describes the student’s impressions. As a result of this investigation, we understand that real experience has a good effect.

1. Introduction

Dr. Jan Davis and Mark C. Lee are NASA’s astronauts and they are a married couple. They are famous in Japan because they were members of the crew.
of space shuttle STS-47, together with the first Japanese astronaut Mamoru Mouri. The couple visited Japan to watch the Nagano Olympic Games privately and Mr. Agata invited them to visit our school, The Upper and Lower Secondary Schools Affiliated with the Faculty of Education of The University of Tokyo, on February 16, 1998. They presented a 2-hour lecture to 360 students, a lecture entitled “Dream of Space”. It was a very good lecture. Mr. Agata had the students in his class, 120 first-year junior high school students, complete a questionnaire before and after the lecture.

2. Results obtained from the questionnaire

Fig. 2 shows the results for the question “Are you interested in space development?” Before the meeting with the astronauts, the proportion of students who were “fairly interested” was 39.7%. However, after the meeting, the proportion “fairly interested” increased to 56.4%. Fig. 3 shows the results for the question about whether the student knows NASA. Before the meeting with the astronauts, the proportion of students who gave the correct answer was 58.0%. However, after the meeting, the proportion of students who gave the correct answer increased to 92.3%. Also, Fig. 4 shows the results for the question “If you know the name of the space development institution in Japan, please give the answer”. Before the meeting, the proportion of students who gave the correct answer was 1.7%. After the meeting, the proportion of students who gave the correct answer was 67.5%.

3. Students’ Impressions

The following are examples of students’ impressions, written by students after the class.

I think that the lecture had a great result.
This thing I could understand from the next thing.
“The students showed interest in the universe. Also, the students developed a better understanding of the universe.”
Earth — our home — is part of the universe, and students are the torchbearers of “Earth’s Future”.

4. Letters sent to Astronauts from students

The following are examples of letters sent to the astronauts from students after the class.
Before meeting the Astronauts

Q2. If you know the name of the space development institution in U.S.A, please answer it (abbreviation will do)

Correct: NASA

42.0% 58.0%

Correct: uncorrected

After meeting the Astronauts

Q2. If you know the name of the space development institution in U.S.A, please answer it (abbreviation will do)

Correct: NASA

7.7% 92.3%

Correct: uncorrected

Figure 3  If you know the name of the space development institution in the USA, please give the answer. (Upper: Before the class, Lower: After the class)

Before meeting the Astronauts

Q3. If you know the name of the space development institution in Japan, please answer it (Abbreviation will do)

Correct: NASDA

1.7% 98.3%

Correct: uncorrected

After meeting the Astronauts

Q3. If you know the name of the space development institution in Japan, please answer it (Abbreviation will do)

Correct: NASDA

32.5% 67.5%

Correct: uncorrected

Figure 4  If you know the name of the space development institution in Japan, please give the answer. (Upper: Before the class, Lower: After the class)
Dear Jan Davis and Mark C. Lee
Thank you very much for coming to our school, Todai-fuzoku, though you were
very busy. I was deeply moved because I was taught about your experience in space
and given a present. When I shook hands, I was surprised that Mr. Lee's hands
are very big. You did various types of work in space with those hands, didn’t you?
By the way I heard you went to Nagano. How did you make out? Were the
Olympic Games interesting? I couldn’t go to Nagano, so I envy you.
I wish you success in the future. Please try hard! Good-bye.

Atsushi Konno (senior high school student)

Dear Davis & Lee
I’m interested in space and I enjoyed listening to the talk.
I don’t have 10 billion dollars so I can’t go into space.
I want to go into space someday.

Yuko Tanino (junior high school student)

5. Conclusion
As a result of this investigation, we understand that real experience has a
good effect. This result supports our idea that “to study real science with a real
scientist” is certainly effective in education.

Astronomical Education Using the Internet for Handicapped People

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Abstract
Although some handicapped people have a keen interest in astronomy, it
is very difficult for them to see the stars because of their limited physical abilities.
However, the Internet and a personal computer may compensate for their limited
abilities and allow them to do some astronomical observations. In that sense,
Hands-On Universe is very useful to them. In the present paper, I describe the
HOU activities in Kajiki School for the Handicapped in Kagoshima Japan.

1. Introduction
Kajiki School for the Handicapped is a school for students who suffer from
diseases such as muscular dystrophy, chronic diseases like kidney (renal) disease
and cerebral palsy. All of the students in Kajiki School for the Handicapped
are severely handicapped physically or intellectually (both in some cases) and
cannot leave the hospital located next to the school. It is difficult for them to
find life worth living after graduation. However, some of them are interested in
astronomy and want to study it. Astronomical research can provide them with
the opportunity to find something worth doing in their painful lives.

Hands-On Universe (HOU) is an educational science program for high
school students. The handicapped students can study not only astronomy but
also physics, math and computer operation through HOU activities. The most
striking feature of HOU is the use of the Internet and personal computers for
processing of images of astronomical objects. They can use the HOU telescope
located in Leishner Observatory owned by the University of California Berkeley
and they can collaborate with students in other schools through the Internet.

HOU activities are effective in education of handicapped students in terms
of the following three points.

First, the Internet brings them a lot of information. The handicapped