The assessment of fun and play visiting activity for young children

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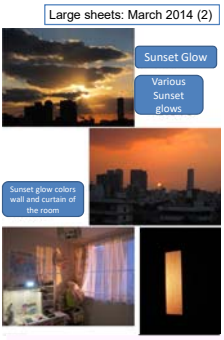
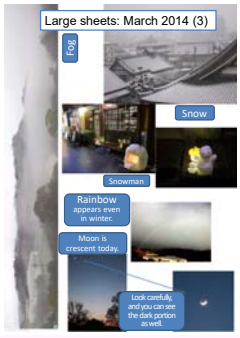
Visiting Activity at Nurseries and Preschools

Who visits: Tomita (sometimes with students; pre-service teachers)

Prerequisites: Slide (from PC), large sheets, small card (sometimes for coloring)

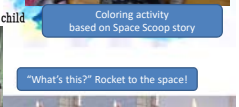
Activity: Talking with slides, chatting with each other, coloring the cards for 3-to-5-year-old children (about 80 to 100 children).





Introduction of today's topic

"Noisy" time: Chatting with each child



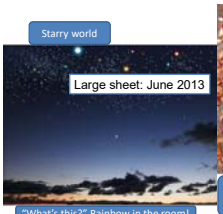
Arranged Universe Awareness Evaluation Guide's objectives through experience of "*Uchu no O-hanashi*"

Bold: seen frequently during "*Uchu no O-hanashi*"

1. Motivation
   - **1.1. Enjoyment**
   - **1.2. Inspiration**
   - **1.3. Curiosity**
2. Scientific Skills
   - **2.1. Observation**
   - **2.2. Asking**
   - **2.3. Exchanging Opinions**
   - **2.4. Interpreting (Trying to Interpret, Explain)**
   - **2.5. Trying**
   - **2.6. Devising**
   - **2.7. Confirming**
   - **2.8. Recording** (by drawing)
   - **2.9. Preserving**

Curiosity — Individual

Communicate — Common



Practice record summarized in *4-line table*

1st column: Child's voice (from record)
2nd column: Visitor's voice (from record)
3rd column: Visitor's feeling and intention (after reflection)
4th column: *Bud of science* shown in the chat (after reflection)

Curiosity

Scientific Skills

Communication

BEFORE / AFTER

In a course of the class for primary school & kindergarten pre-service teachers:
"Environment"
Various daily-life science, fun science materials were presented.

BEFORE

Science is "difficult and serious" to me, as I studied weather, chemicals, and living things. It is a subject starting from secondary school, and it seems that it is not suitable for early childhood.

Not familiar things to me.

An image of being difficult.

Seems to be difficult.
Must explode during school experiment.

Calculation and memorization.
Opposite to my feelings.

Requires difficult formulae and calculations.
Seems to be serious.
Only for the strange people.

AFTER

From a image of scientists processing some chemicals, now I have a new image that science is more familiar to our daily life.
I found many "is it also science?"
Our daily life is full of science.

Science deals with many daily life things.
In the daily life at nurseries and kindergartens, children improves their own scientific skills in many ways. I understand it from many records of nursing.

Now I have a new image that we can enjoy science in daily life. Daily-life materials can be science materials through educator's idea.
Children's casual thinking and interests can be evaluated through scientific point of view; it is wonderful.

From children's point of view, we can find many things related to science in our daily life.
Adults don't ask questions so frequently.
But children do. Children feel many wonders.
I thought it difficult at first, but now I realize that "science" is just everyday life.

A difficult image at first, but examples were not difficult and all of them were interesting to me.
Now I feel that "Science = Fun."

I have a new image that "science" is what we can learn from fun activity.
I thought "science" was serious and difficult.
Now I think it is fun and interesting.

I had an image that "science" was difficult and serious.
I changed the image, and now I think science is fun and stirs up the interests.
An important part of "science" is the attitude of enjoying.

Interesting.
Full of wonders.
Daily life environment offers a lot of hints for science.

We contact "science" without knowing it is science in our daily life.
"Science" is full of fun.

My first impression was that science was difficult and unapproachable.
Through this course, I have changed my attitude to science; science is like this? It is interesting!
I noticed that many things I have experienced in my daily life were full of science.

BEFORE >> AFTER

What is your impression about science?

Gene, cell… a very difficult subject which requires very hard study.
I don't like the subject of science, so science is a long way off of me.

EXAMPLE of 4-line table: Rocket: up and up! strategy

April 2013, after seeing rocket launch video

Child's voice	Visitor's voice	Visitor's feeling and intension	Bud of Science shown
Listen, if we do "boo-oh" with bird and firework, would it go with an awesome speed? (Surprising Question)	Ah, you may be right. A bird flies, and with fireworks, you guess that it would fly much more.	A strange question comes. (Tomita's interest: low)	Asking
Yes.	Well, a rocket goes much farther. A rocket goes much much farther than a bird does.	I will gentry tell him that a help of bird is not a good strategy. (Tomita's interest: low)	Curiosity
If we do with bird… bird and firework?	Well, ah…		Exchanging Opinions
With 10 birds and two fireworks, it would go greatly.	Well, combining things that fly may make it go well.	Regardless of reality, with any possible ideas, we will enjoy constructing new strategy. I will change my attitude. (Tomita's interest: high)	(Tomita begins to enjoy)
With bomb and bird… two birds and three bombs, and with firework, it would…	Great combination. It can be a good one.		
With bird, and the bomb bangs, and…	OK, then, other than bird, firework, and bomb, what would you have that fly?		Interpreting
Well, whale?	Whale? Whale does not fly.	All right, anything is OK. What other ideas come? (Tomita's interest: high)	Enjoyment
Mantle.	Mantle!		
Airplane.	Airplane. Airplane flies.		
Balloon. Helicopter, helicopter!	Helicopter, balloon, OK.		
Eh! Airplane?	Airplane.		
Mantle.	Mantle, does it fly?		
Rabbit!	Rabbit? OK.		
Fairy!	Fairy.		
Flying mantle. Flying mantle.	Flying mantle, I want one.		
Well, magic wand.	Magic wand…		
Listen, bird flies.	Yes, bird flies.		
With eagle, bird, bomb… firework and rocket fire, bang! I guess it would travel far farther.		He compiles and summarizes all the ideas by him and his classmates.	Trying to Interpret Enjoyment
Crow?	Yes, crow, OK.		

EXAMPLE of 4-line table: Search rainbow in the room!

June 2013, the rainbow in the building made by bicycle reflection plate was introduced.

Child's voice	Visitor's voice	Visitor's feeling and intension	Bud of Science shown
Ah! (Surprising Finding) Mr. Tomita!			Inspiration Observing
	You found something? What? Where?	Here comes! He found something!	
This? (A boy reports to teacher.) Teacher, something is seen on a thin glass!			Observing Exchanging Opinions
	This is round. But you can see…	If we see through an angular aquarium, we easily find the rainbow band, but does this round one make it?	
I can't see at all…			
	Then, how about this?		Observing
Ah, I got it! I see! Here!		Goes well!	Trying
	You can see now.		Confirming
Yes.			
I can't see.	Shift your body, to the right, to the left, like this…	No problem. You can catch!	Trying
(on the same day, a little after that)			
Does the rainbow appear where the water filled in? (Surprising Question)			
	Have you ever seen the rainbow where the water filled in?	Instead of each example, is he thinking about general explanation?	Curiosity Asking Interpretation
At the sea.			
	Over there? Can you see now?	Did he see the rainbow-like light in the water at the seashore?	
Far over there!			
	From there? Sometimes you can see?	Is he catching anything?	Trying
I can't see from here.			
	You haven't? Well, where do we get the rainbow now?		
No, I haven't seen it.			
	Well, we saw the rainbow in the bottle some time ago.	OK, let's continue conversation not to shrink their interests.	
Over there?			
Bottle.		OK, they got interested in the bottle.	Curiosity
I can see when I see carefully.			
(Boys and girls go to the bottle on the shelf, bring the bottle down and look into it.)			Trying Confirming
	Don't spill water…		
Here I see.	Be careful. If you drop the bottle, teacher will do for.		
	From a certain angle, you see the rainbow.		
It's true.		OK, they are now trying to confirm.	Confirming
(Boys and girls say.) Yes.			
This and this…		Boys and girls start to exchange their opinions.	Exchanging Opinions
Rainbow.			
Here, the rainbow is.			
But…			
Listen, Mr. Tomita, why… what is the rainbow?		Here comes! A difficult question! (This kind of question emerges.)	Curiosity Asking
Various colors are there.			Inspiration
	You noticed various colors! Well…	They got interested in colors as well.	Trying to interpret
By light?		Now, light!	
	In the light, various colors are there intrinsically. When they scatter, some are red, others are blue… Thus, when light shines through a bottle like this, colors hidden in the light scatter, and we see the colors.	This kind of explanation can be very difficult. Anyway, I will do my best and explain honestly and sincerely.	
Then, this…		He is trying to see more.	Trying
	This? Can you see the rainbow in it? It seems to be difficult.		
I got the rainbow.		He is eager to find.	Confirming
	You got it? The bottle is full of water, so you see rainbow.		

EXAMPLE of 4-line table: Does the Sun really set?

November 2013, sunset images were introduced.

Child's voice	Visitor's voice	Visitor's feeling and intension	Bud of Science shown
Listen, well, like round Moon, setting Sun is… (Anticipating a Surprising Question)		Something is coming.	Observing
Then, is it floating upward or not? (Here comes!)	Yes?	What is his interest?	Curiosity Asking
	Ah, you are interested in whether it is floating… The Sun is…		
Mr. Tomita…	The Sun is dropping down, so it will go down from now on.		
Mr. Tomita, when… when does it drop down?	Oh, the Sun will go down soon.	Is he interested in so much whether it will drop or not?	Curiosity Asking
(When the cards are handed to children, in the end of the activity)	Next, below character. (I am asking children to read characters printed in the card.)		
Setting Sun. (Yuh hi Japanese)	OK, the setting Sun is a red star. To tell the truth, the Sun is one of stars. It's not a star at night, but a star in daytime, in the blue sky.	This is the last corner of the activity. Teachers also listen to my talk, so I will give some didactic talk and end up today's work soon. (I almost feel finished.)	
I am wondering… why are the stars going down? Because the Sun is a star as you said. The setting Sun moves down. But (I think) the stars… (don't move in the night sky.) (Surprising Question)	When the Sun is setting, it turns red like this, as you see…	What? Is he concerned about that?	Inspiration Curiosity Asking Trying to Interpret
	Going down? Well, you may think stars are still in the sky. The Moon and stars rise and then set. The fact is that.	For now, I explain calmly.	
Really?	It's true. Everyone, I am happy now to receive a nice question… Excuse me, what's your name? *E* (fictional name) ? As he asked me, all the Moon, the Sun, and stars… well, from here, the east is the direction of mountains, they rise from the direction of mountains. If you see stars patiently for a while, you will notice that they are setting. Stars seem to be floating still in the night sky, but if you look at them carefully, you will find them moving. Thus, this evening Sun is setting. Therefore, daytime can't be forever. After the Sun sets, night comes.	Is he so interested in it? For now, I continue to explain. Today, they are tenacious!	Asking Exchanging Opinions

Nursery educator's observation

At the conference with teachers, after the activity, teacher of 4-year-old class reported:

When children saw rainbow slides of "What's this?" I could not catch children's impressions so much, but after that, when they enjoyed the pictures on the large sheets, they said "three colors" (in the rainbow) at first. They said "only three colors." Then, I said, look carefully. Our class is now practicing a song of Rainbow March, and in the song, there are lyrics of seven colors. So I said to children, check the colors over singing the song. Children picked up the seven colors in the rainbow pictures as they sang the song.
(omission)
In the end, *A* (fictitious name) got interested in the rainbow so much, and she muttered "Why the rainbow emerges above all?" "I want to know the reason the rainbow emerges." *A* and *B* are usually calm and quiet girls. *B* said "Rainbow projected in the ground is different from one in the sky in its colors." Maybe it is partially due to artificial effect of photos, she was aware of color difference.

After three months, at the conference, teacher of 4-year-old class reported:

After enjoying seeing the rainbow pictures in the previous activity, children have been interested in searching the rainbow so much. Some said "I found in front of the room." Just in the morning, *E* said "I glimpsed the Sun." Maybe her hair tips reflected the sunlight or so, she might find the rainbow, "Teacher! I can see rainbow when I see the Sun!" At first I could not understand her. What was she saying? Then I turned my head to the Sun, I noticed the rainbow around tips of my hair. Amazing! I was so surprised that children could be aware of even such kind of things.

Inspiring, Observing, Curiosity

Nursery educator's observation

At the conference with teachers, after the activity, teacher of 4-year-old class reported:

What *A* was concerned about is that this setting Sun is floating like stars are floating. So she said "I can't judge whether it will go upward or downward." Then I explained that the Sun is going down and the Sun turns red as a glowing Sun, and it is setting and going down. *A* said surprisingly that "then after the setting, where will it go?" Then I said, you ask your question to Mr. Tomita, but many boys and girls rushed to Mr. Tomita, and so crowded that *A* was never able to ask… This time, she was left with a feeling that star is mysterious… She has been saying all though the activity that it is wondrous… *B* and *C* are usually calm and quiet boys and they always stand in the rear, but I am surprised that they asked assertively. *D* also enjoyed asking actively and seeing the pictures.

Inspiration, Observing, Asking, Interpreting, Curiosity