

## Chapter 3

In this chapter, the result of a questionnaire survey to check learning outcomes that was implemented after NAKAHARA animation activities were completely finished including a screen party will be introduced. This questionnaire survey was implemented almost every time when NAKAHARA animation activities were held.

Also in FY 2015, questionnaires were handed out to the 63 students of 6<sup>th</sup> grade in 2 classes who joined in the carrier educational activities except one who was absent for long periods of time and they were allowed to answer to questions openly.

Regarding the setting of the question items in the questionnaire survey, the detail was described in a previous report, if you have interests in the detail, please see it. Only the outline is explained in here, each question item was made by the author through combining quantitative analysis by text mining with qualitative analysis by Modified Grounded Theory Approach (M-GTA) based on the data of the externalizing cards that were collected at the beginning of the carrier educational activities implemented in Nakahara Elementary School. In the background of preparing the question items with these kinds of analysis methods, there is an intention to make the items associate with descriptions that the students wrote on the externalizing cards as much as possible.

In this questionnaire survey, there is no question item that is vague and difficult to answer such as “Are these activities useful for your future planning?” that is seen in the common types of questionnaire surveys. Each question is detailed and prepared absolutely based on real experience in the activities that the students had been carried out.

The reason why the detail of the questions is well considered is that there is an aim to let the students answer easier through preparing ones in connection with their real experience as much as possible and the author explain the results easier too in the same way as introducing confirmed various and practical abilities that were bloomed and demonstrated in the participating students through NAKAHARA animation activities in Chapter 2. If a gap between questions and real experience is minimum, the results of the questionnaire survey will turn to be more acceptable for everyone.

Totally there are 17 question items and they are divided by 4 stages, Preliminary production stage, Planning stage, Production stage and Posteriori production stage in connection with a series of working process. As mentioned above, each question was set up making the best use of the data of the externalizing cards collected in each stage. A learning program for NAKAHARA Animation with 4 stages was set up in connection

with acquiring the 7 abilities to lead to the improvement of zest for living that Mitaka City holds up. As noted above, as long as a gap between questions and real experience is minimum, it enables us to figure out the exterior of learning situations regarding the 7 abilities even through the results of this questionnaire survey.

In each question item, 4 choices are prepared. In this chapter, aggregate results about how many times the students selected each choice were directly cited and statistical analysis was conducted with a method named as Exact Probability Test that compared the sum of the 2 choices that showed a positive trend with the sum of the other 2 ones that showed a negative trend in 4 ones and analyzed which side of the sum of the choices sloped. All results were also introduced in this chapter.

By the way, Exact Probability Test is the simplest statistical method, however as its name suggests, it is said that the most exact method of verification because of the simplicity. For details, please refer to the following URL.

Fisher's exact test

[https://en.wikipedia.org/wiki/Fisher's\\_exact\\_test](https://en.wikipedia.org/wiki/Fisher's_exact_test)

Furthermore, in the following URL, free service for Exact Probability Test that everybody can try easily is provided (only in Japanese). If there are 2 comparable values, statistical results will be outputted instantly just after inputting them.

js-STAR 2012

<http://www.kisnet.or.jp/nappa/software/star/freq/1x2.htm>

#### ◇ Questions related to Preliminary production stage

1. In the first activity of Carrier Educational Program, you understood that animation production needed the involvement of many people and was a hectic job even completing one film.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
57	5	1	0
The sum of 1 and 2		The sum of 3 and 4	
62		1	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			

Two-tailed test:  $p=0.0000$  \*\* ( $p<.01$ )

It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.

2. When the expert on animation production visited, you understood that it was necessary to draw surprisingly a lot of pictures for making one animation film.

$n = 63$

1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
61	2	0	0
The sum of 1 and 2		The sum of 3 and 4	
63		0	

The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4

Two-tailed test:  $p=0.0000$  \*\* ( $p<.01$ )

It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.

3. When you made clay animation for the first time, you understood that making animation with your hands was hard work.

$n = 63$

1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
51	10	1	1
The sum of 1 and 2		The sum of 3 and 4	
61		2	

The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4

Two-tailed test:  $p=0.0000$  \*\* ( $p<.01$ )

It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.

4. When you made clay animation for the first time, you thought that it was difficult to make it but also fun once you could do it.

$n = 63$

1. Thought well	2. Thought a little	3. Not think well	4. Not think at all
45	15	2	1

The sum of 1 and 2	The sum of 3 and 4
60	3
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4	
Two-tailed test: $p=0.0000$ ** ( $p<.01$ ) It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.	

Regarding above all 4 question items related to Preliminary production stage, according to comparison between the sum of the positive choices “1. Understood well or 1. Thought well” and “2. Understood a little or 2. Thought a little” and the sum of the negative choices “3. Not understand well or 3. Not think well” and “4. Not understand at all or 4. Not think at all” by Exact Probability Test, statistically significant difference at  $p<.01$  that inclined to the side of the sum of the positive choices was found. By the way,  $p<.01$  means that a possibility that will overturn the result of statistically significant difference that inclined to the side of the sum of positive choices is less than 1 time even same question is asked 100 times.

As the explanation of each question item, at first regarding No.1 question item “In the first activity of Carrier Educational Program, you understood that animation production needed the involvement of many people and was a hectic job even completing one film.”, 1 student chose a negative response alternative. Probably he/she might not have a feeling of reality about how hard the job is even after listening to a lecture on complicated film production process from an expert on animation production. Or he/she might have already known to some degree about the reality of the animation industry through watching a TV show or other media.

On the other hand, considering 62 students chose positive choices, it can be sure that as a first step to foster ability to understand occupation, listening to a lecture from an expert had become a valuable opportunity for them to know about the structure of animation production as an occupation and how it is working out.

Regarding No.2 question item “When the expert on animation production visited, you understood that it was necessary to draw surprisingly a lot of pictures for making one animation film.”, considering every student chose positive choices, we can read that they firmly recognized the truth that animation films which they are usually watching was composed of astonishingly a number of pictures more than imagined. Moreover, in connection with ability to understand occupation mentioned above, to know the reality of animation production also becomes the first opportunity for them to recognize that

the production activities which they will try from now on are never easy.

Regarding No.3 question item “When you made clay animation for the first time, you understood that making animation with your hands was hard work.”, 2 students chose negative choices and there were 10 students who picked up “2. Understood a little”. Probably these students might feel a good response to clay animation production instead of having difficulty because they could do it better than expected.

On the other hand, considering 51 students chose “1. Understood well”, in the same way as above noted question item No. 2, with relation to blooming or demonstrating ability to understand occupation, it suggested that most of students could recognize that clay animation production which they will try from now on should never be done with a feeling of fun.

Regarding No.4 question item “When you made clay animation for the first time, you thought that it was difficult to make it but also fun once you could do it.”, 3 students chose negative choices and there were 15 students who picked up “2. Thought a little”. As an alternatives reaction to No.3 question item mentioned above, it is supposed that these students might have difficulty in producing clay animation with requirements of controlling a character in millimeters and shooting the results one by one more strongly than feeling expectation or fulfillment in the new trial.

Both recognizing hardship or difficulty to produce animation as an occupation and feeling fulfillment or accomplishment once they could do well are important factors to lead to the improvement of ability to understand occupation. Considering the trend of answering this question, we can assume that feeling hardship or difficulty in work is higher than feeling fulfillment in this fiscal year’s participating students. We can also say that it proved that they tried animation production very seriously focusing their mind.

◇ Questions related to Planning stage

5. For the first time when the activity of making a proposal for planning was held, you understood that completing your own planning was difficult and a hectic job.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
52	8	3	0
The sum of 1 and 2		The sum of 3 and 4	
60		3	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3			

and 4
Two-tailed test: $p=0.0000$ ** ( $p<.01$ ) It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.

6. When you listened to other members' proposals for planning in your group, you understood that each of them had a different story.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
52	11	0	0
The sum of 1 and 2		The sum of 3 and 4	
63		0	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

7. You understood that selecting only one planning in your group was a difficult job with disputes and troubles.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
43	16	1	3
The sum of 1 and 2		The sum of 3 and 4	
59		4	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

8. You understood that it was necessary to discuss and collaborate with everyone in your group on deciding important issues such as a theme for your film.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all

56	5	2	0
The sum of 1 and 2		The sum of 3 and 4	
61		2	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

9. When the planning presentation was held and you got advices from the expert on animation production, you understood that which part of your group’s proposal for planning was necessary to be revised.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
51	9	3	0
The sum of 1 and 2		The sum of 3 and 4	
60		3	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

Regarding above all 5 question items related to Planning stage, according to comparison between the sum of the positive choices “1. Understood well” and “2. Understood a little” with the sum of the negative choices “3. Not understand well” and “4. Not understand at all” by Exact Probability Test, statistically significant difference at  $p<.01$  that inclined to the side of the sum of the positive choices was found.

As the explanation of each question item, at first, regarding No.5 question item “For the first time when the activity of making a proposal for planning was held, you understood that completing your own planning was difficult and a hectic job.”, 3 students chose a negative choice and there were 8 students who picked up “2. Understood a little”, it is conceivable that this question item might miss the point to those students who are good at making an original own story and completing a proposal.

On the other hand, considering 52 students chose “1. Understood well”, we can say that they had difficulty in finding ideas for an original story and making it

understandable for everyone because it was the first time for them to try writing a proposal for planning as a job. Furthermore, the experience of making a plan should also become the first opportunity for them to face the real test of their ability to carry out a plan and ability to solve problems.

Regarding No.6 question item “When you listened to other members’ proposals for planning in your group, you understood that each of them had a different story.”, considering that there was no student who chose negative choices, we can say that every student could at least recognize that each member had a different opinion and idea at the stage of selecting only one planning. In connection with ability to understand self-other, this result means for them that enough communication ability to persuade other members was also required after that precisely because each of them had a different opinion.

Regarding No.7 question item “You understood that selecting only one planning in your group was a difficult job with disputes and troubles.”, 3 students chose negative choices and there were 16 students who picked up “2. Understood a little”. This suggests on the flip side of the coin that there were few troubles and selecting only one planning was done relatively smoothly in some groups.

On the other hand, considering 43 students chose “1. Understood well”, it means that selecting only one planning was a very difficult job for most of groups to deal with. As noted above, because each member’s planning differed, it also means that demonstrating communication ability was fully required to persuade other members if they wish their own planning to be adapted.

Regarding No.8 question item “You understood that it was necessary to discuss and collaborate with everyone in your group on deciding important issues such as a theme for your film.”, 2 students chose a negative choice. In contrast to question item No. 6 and No. 7, it is only a guess that some groups that the students who picked up this choice belonged to might struggle to select only one planning to the last and could not form a consensus inside a group firmly so that they might start the production activities for example by a director’s or other specific member’s own authority without more effort to reach a consensus. Or it is also only a guess that in connection with question item No. 7 mentioned above, selecting only one planning was done too smoothly so that some students might feel regret that they should keep discussion more positively in a group and make a better plan even facing disputes and troubles.

On the other hand, considering there were 61 students who chose positive choices, it suggests that most of students had difficulty in making a good plan unless they could collaborate within a group to keep discussion. Precisely because only one of four



proposals was adapted, this result suggests that demonstrating communication ability substantially was requested in every group.

Regarding No.9 question item “When the planning presentation was held and you got advices from the expert on animation production, you understood that which part of your group’s proposal for planning was necessary to be revised.”, 3 students chose a negative choice and there were 9 students who picked up “2. Understood a little”. In the background it is conceivable that they could advance the production activities as initially planned because comments from an expert on animation production was better than expected or could not firmly grasp what the expert criticized because it was too professional.

On the other hand, considering there were 51 students who chose “1. Understood well”, it suggests that professional comments by the expert were useful for most of students. This result apparently suggests that as one of features in NAKAHARA animation activities asking the expert of the field about his/her advices instead of a teacher was effective and was also related to fostering ability to understand occupation and ability to gather and find information.

◇ Questions related to Production stage

10. You understood that animation production (storyboard and materials making and film shooting) was a very difficult job to complete without collaboration among members in your group.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
59	2	1	1
The sum of 1 and 2		The sum of 3 and 4	
61		2	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

11. You understood that shooting your film could not proceed smoothly if disputes or troubles happened among members in your group.
n = 63

1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
42	17	3	1
The sum of 1 and 2		The sum of 3 and 4	
59		4	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

12. You understood that film shooting could proceed smoothly if role sharing worked well in your group and each member completed his/her job.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
48	13	0	2
The sum of 1 and 2		The sum of 3 and 4	
61		2	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

13. You understood that it was necessary to hold on to the last to complete your film even while you were pressed for time.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
57	6	0	0
The sum of 1 and 2		The sum of 3 and 4	
63		0	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

14. You understood that you were very happy when you completed your film that you devoted to.			
n = 63			
1. Understood well	2. Understood a little	3. Not understand well	4. Not understand at all
54	7	1	1
The sum of 1 and 2		The sum of 3 and 4	
61		2	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

Regarding above all 5 question items related to Production stage, according to comparison between the sum of the positive choices “1. Understood well” and “2. Understood a little” and the sum of the negative choices “3. Not understand well” and “4. Not understand at all” by Exact Probability Test, statistically significant difference at  $p<.01$  that inclined to the side of the sum of the positive choices was found.

As the explanation of each question item, at first regarding No.10 question item “You understood that animation production (storyboard and materials making and film shooting) was a very difficult job to complete without collaboration among members in your group.”, 2 students chose negative choices, since some groups could not manage collaborative work smoothly to the last, it might affect this result. Or considering every group in this fiscal year could produce their films quite earlier than the deadline, the students who belonged to groups that could go ahead with animation production more than expected might choose these choices.

On the other hand, considering 61 students chose positive choices, we can say that in connection with ability to understand occupation and ability to solve problems, most of them learned through animation production that dealing with jobs and challenges as a group and working together with other members are the fundamentals of working.

In the same way as above noted question item No. 7, regarding question item No. 11 “You understood that shooting your film could not proceed smoothly if disputes or troubles happened among members in your group.”, it is common in almost every year that it was difficult for most of groups to move forward with every production activity smoothly and they often faced disputes and troubles within a group instead. However,

because there were some groups that could get on with the job of what they needed to do smoothly without a trouble, this question was irrelevant to the students who belonged to these kinds of groups. Therefore, we can guess that 4 students chose negative choices and there were 17 students who picked up “2. Understood a little”. Furthermore, because there were some groups that had the very strong bond of solidarity in this fiscal year, it might be reflected in this result.

On the other hand, because 42 students chose “1. Understood well”, it proved that they could not move forward with the production activities as they wished and it means that they experienced hardship to that extent within a group such as disputes or troubles.

NAKAHARA animation activities do not automatically regard disputes and troubles as a negative issue and approve the value of a variety of abilities starting with the various types of communication ones as introduced in Chapter 2 that are strengthened through this kind of hard experience. We can say that these are one of features that the activities have.

Regarding No.12 question item “You understood that film shooting could proceed smoothly if role sharing worked well in your group and each member completed his/her job.”, 2 students chose a negative choice and there were 13 students who picked up “2. Understood a little”. Considering that there were many groups in this fiscal year’s activities that had the strongest bond of solidarity in 11 year activity records as mentioned above, this result was unexpected to some extent. It is conceivable that there might be many students who had a feeling of regret such as they could do it more effectively reflecting on the result of social evaluation in a screen party.

On the other hand, considering that 48 students chose “1. Understood well”, in connection with ability to understand and recognize a role and ability to carry out a plan, we can say that they acknowledged the value of sharing roles properly to carry out jobs from an early stage. As mentioned above, actual achievement that every group could release their completed version films earlier than originally scheduled supports this result.

Regarding No.13 question item “You understood that it was necessary to hold on to the last to complete your film even while you were pressed for time.”, considering that every student chose positive choices, it suggests that all participating students realized to no small extent that it is necessary to work hard to accomplish important responsibilities. This result shows that a sense of understanding occupation was definitely fostered in the students and it led to the meaning of implementing the carrier educational activities in public education.

Regarding No.14 question item “You understood that you were very happy when you completed your film that you devoted to.”, 2 students chose negative choices and there were 7 students who picked up “2. Understood a little”, we can guess that there were some students more than a few who had strong feelings such as there was room for improvement on the quality and outcome of their films might affect this result.

On the other hand, considering that 54 students chose “1. Understood well”, in connection with fostering ability to understand occupation, we can take into account that most of students felt fulfillment from completing one animation film as a responsible job. Having this kind of fulfillment based on real experience will also turn to be an important indicator that leads to the expectation of having a job in the future for them.

◇ Questions related to Posteriori production stage

15. You thought that you felt great when you finished your film completely and introduced it in the screen party even though there were difficulties and hardships.			
n = 63			
1. Thought well	2. Thought a little	3. Not think well	4. Not think at all
48	12	3	0
The sum of 1 and 2		The sum of 3 and 4	
60		3	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			
Two-tailed test: p=0.0000    ** (p<.01)			
It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.			

16. You thought that you were glad when you received professional advice to your completed film from the expert on animation production in the screen party.			
n = 63			
1. Thought well	2. Thought a little	3. Not think well	4. Not think at all
46	15	2	0
The sum of 1 and 2		The sum of 3 and 4	
61		2	
The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4			

Two-tailed test:  $p=0.0000$  \*\* ( $p<.01$ )

It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.

17. You thought that animation films that other groups produced had a variety of ingenious attempts and ideas when you saw them in the prototype edition presentation or the screen party.

$n = 63$

1. Thought well	2. Thought a little	3. Not think well	4. Not think at all
58	5	0	0
The sum of 1 and 2		The sum of 3 and 4	
63		0	

The result of Exact Probability Test by comparing the sum of 1 and 2 with the one of 3 and 4

Two-tailed test:  $p=0.0000$  \*\* ( $p<.01$ )

It indicated that the sum of 1 and 2 achieved statistical significance in the two-tailed test.

Regarding above all 3 question items related to Posteriori production stage, according to comparison between the sum of the positive choices “1. Thought well” and “2. Thought a little” and the sum of the negative choices “3. Not think well” and “4. Not think at all” by Exact Probability Test, statistically significant difference at  $p<.01$  that inclined to the side of the sum of the positive choices was found.

As the explanation of each question item, at first regarding No.15 question item “You thought that you felt great when you finished your film completely and introduced it in the screen party even though there were difficulties and hardships.”, 3 students chose a negative choice and there were 12 students who picked up “2. Thought a little”, probably in the same way as above noted No.14 question item, considering the result of social evaluation in a screen party, we can guess that because there were some students more than a few who felt regret that they could not make a good enough film to lead to their satisfaction or fulfillment, it might affect this result.

On the other hand, considering that 48 students chose “1. Thought well”, in connection with ability to carry out a plan and ability to understand occupation, in the same way as above mentioned No.14 question item, we can take into account that there were many students who felt fulfillment based on the truth that they could complete a film and show it to an audience.

Even choosing either side of the choices, the truth that they could complete films still remains, if they satisfied with that temporarily because they definitely achieved the result or they wished to go forward, we can guess that relatively more students might wish to go forward in this fiscal year.

Furthermore, having an evaluation from an audience in a screen party was a special opportunity for them to be given because they carried out their jobs completely and one of trials for them as a first step to be approved as a full-fledged member of society. We can say that this result is an honest response from the students to NAKAHARA animation activities that hold these kinds of opportunities in high esteem.

Regarding No.16 question item “You thought that you were glad when you received professional advice to your completed film from the expert on animation production in the screen party.”, 2 students chose a negative choice and there were 15 students who picked up “2. Thought a little”. In the background of this fiscal year’s activities, checking prototype version films and commenting on them by an expert were delayed because completed version ones were released quite earlier than the deadline. It should have some effect on this result. Most of groups had already made their completed version films before receiving comments from an expert.

On the other hand, in connection with ability to understand occupation and ability to gather and find information, this result indicates that 46 students who picked up “1. Thought well” could find value in this kind of opportunity such as receiving comments from an expert even they were delayed. Furthermore, this result suggests that using knowledge and wisdom from outside as one of features in carrier education worked effectively in the activities implemented in Nakahara Elementary School.

Regarding No.17 question item “You thought that animation films that other groups produced had a variety of ingenious attempts and ideas when you saw them in the prototype edition presentation or the screen party.”, considering that all students chose positive choices, we can read that every students tried hard to find valuable information that might lead to improve their film as much as possible even examining other groups’ films carefully.

In connection with ability to gather and find information and ability to solve problems, though finding good ideas and improvements constantly is the most basic of basic skills, this result shows that every participating student definitely made excellent use of this basic skill.

Consideration

As an overall consideration with regard to the result of the questionnaire survey, in the same way as previous years, the sum of the positive choices apparently exceeded the sum of the negative ones in every single question item. Even as statistical results, significant difference between them that inclined to the side of the sum of the positive choices was found in every question item.

Statistical significance can only show which side of the sum of the positive choices or the sum of the negative ones slopes. Therefore, it is impossible to make an assertion about learning outcomes expected in each question items were approved in entire classes. However, we can say that there was a trend that most of students approved these learning outcomes.

On the other hand, in each question item, there were some students who chose negative choices. In the background of this fiscal year's activities, it is conceivable that there might be many students who set their heart on animation production with a high professional sense to complete their obligations more than a sense of fulfillment as a whole.

As mentioned above, in almost every year there were many groups that could not complete their films just before a screen party for completed version that was held around the middle of January. In this fiscal year, the truth as a brilliant achievement that every group could complete their films by late December before the end of the year verifies that many students worked out with a high professional sense.

As long as implementing the carrier educational activities in the framework of public education, both feeling fulfillment and having a professional sense are necessary factors. If only feeling fulfillment is put at the forefront, the activities will end up just for fun and the meaning of holding animation production as a responsible job will diminish. On the other hand, if the activities force the students only to increase a professional sense, hardship alone will be left and pride in having a job or feeling accomplishment after a responsible job is completed will never occur, on top of all that there is anxiety that the students cannot hope for their future or cultivate a sense of anticipation of having a job.

Every year how to keep the balance between them is a key to move the carrier educational activities in Nakahara Elementary School forward. In this fiscal year, because a learning concept was decided to challenge higher tasks at all times by the teachers in charge carefully considering that the strong bond of solidarity had already been constructed among the students. Therefore, each student could try the activities from the beginning with a professional sense to no small extent. We can guess that these kinds of things might affect this questionnaire survey. In other words, it can be



said that the learning concept that sought further challenges could achieve a successful outcome based on trusting the strong bond of solidarity among the students.