

Questionnaire Investigation for the Support of High School Teachers by the School Social Worker

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Abstract. High School teachers in Japan are sending very busy days on their daily works including teaching, support for the club activities and deskwork. School Social Worker can coordinate the professionals out of school and can help teachers by decreasing their burden on that area. There are few related papers concerning the support of club activities by utilizing the professionals outside. In this paper, a questionnaire investigation is executed in order to clarify their current condition and their consciousness, and to seek the possibility of utilizing school social worker for their support. Hypothesis testing was executed based on that. Some interesting and instructive results were obtained.

Key Words: School Social Worker, High school, teacher, hypothesis testing

1. Introduction

Teacher at High school / Junior High School in Japan are sending very busy days in general on their daily works including teaching, support for the club activities and deskwork. Among them, they share a lot of time for managing the club activities of students compared with other countries. In particular, it takes time to manage the club activities for sports. In that area, professionals can make instruction much better than teachers for the special sports like Judo and Kendo (Japanese fencing) etc. School Social Worker can coordinate the professionals out of school and can help teachers by decreasing their burden on that area.

In this paper, a questionnaire investigation is executed in order to clarify their current condition and their consciousness, and to seek the possibility of utilizing school social worker for their support. Hypothesis testing was executed based on that.

Two main issues are set as follows.

- Teachers assistance for Junior High School is much more effective than for High School in introducing the

School Social Worker.

- Teachers assistance for the middle ranked performance High School is much more effective than for other ranked performance High School.

We have made 19 Null hypotheses based upon these and hypothesis testing is executed.

Some interesting results were obtained.

The rest of the paper is organized as follows. Outline of questionnaire investigation is stated in section 2. Hypothesis Testing is carried out in section 3, which is followed by the Remarks of section 4.

2. Outline and the Basic Statistical Results of the Questionnaire Research

2.1 Outline of the Questionnaire Research

We make a questionnaire investigation for the Support of High School Teachers by the School Social Worker. The outline of questionnaire research is as follows.

- (1) Scope of investigation : High School Teacher, 7 High Schools in Aomori Prefecture, Japan
- (2) Period : January ~March 2014
- (3) Method : Leave until called for
- (4) Collection : Number of distribution 231
Number of collection 170(collection rate 73.6%)
Valid answer 170

2.2 Basic Statistical Results

Now, we show the main summary results by single variable.

2.2.1 Characteristics of answers (Q4)

Table 2.2 The main summary results by single variable

(1)Attribute (Q4) (%)			⑤How many years are you working for the present school? (Q4-5)	Within 1 year	4.7
① Sex (Q4-1)	Male	64.12		⑥How about the sort of job? (Q1-2-2-3)	1-2 years
	Female	31.76	3-4 years		12.94
	Not filled in	4.12	5-9 years		18.24
② Age (Q4-2)	20-29	16.47	More than 10 years		57.09
	30-39	28.82	⑥How about the sort of job? (Q1-2-2-3)		Adviser
	40-49	22.35	Deputy Adviser	11.18	
	50-59	29.41	Miscellaneous	2.35	
	60-	1.76	(2) Status of the club activity (2-2-3,4) (%)		
Not filled in	1.19	① Is the club	Yes	18.82	
③ Posi	Deputy		3.5		

tion (Q4-3)	Principal	3	strong enough	Cannot say either	17.06	
	a person in charge of educational affairs	8.24	to participate in the national	No	62.94	
	Teacher	74.71	1 sport meet? (Q1-2-2-4)	Not filled in	1.18	
	Lecturer	9.41	② Is the club activity active? (Q1-2-2-5)	Yes	52.94	
	Assistant	1.18		Cannot say either	31.76	
	Miscellaneous	2.93		No	13.53	
④ Experience as a teacher (Q4-4)	Within 1 year	3.53	(3) Course (Q1-2) (%)	Not filled in	1.76	
	1-2 years	2.94		① Course	Ordinary course	31.76
	3-4 years	11.18			Technical course	31.76
	5-9 years	14.71		General course	5.29	
	More than 10 years	67.06		Professional course	14.12	
Not filled in	0.58		Ordinary/ Professional course	17.06		

Next, the clubs that teachers are in charge of are as follows(Figure 2.1,2.2).

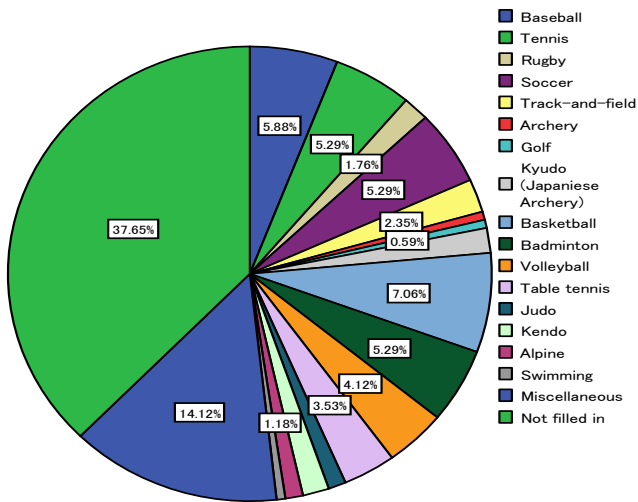


Figure 2.1 Sports Club (Q 1-2-1)

Large part one is Basketball (7.06%), Baseball (5.88%), Soccer (5.29%) and Badminton (5.29%). Miscellaneous (14.12%) includes Ice hockey, Softball, Bowling, Boxing, Karate etc. “99” means “Else”.

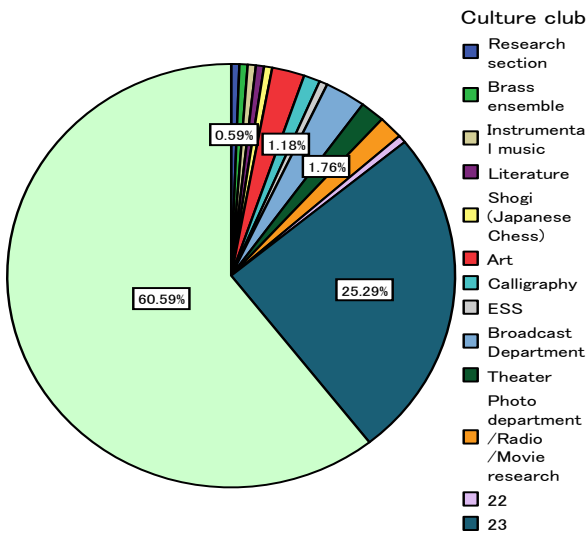


Figure 2.2 Culture Club (Q1-2-2)

3. Hypothesis Testing

Hereinafter we make hypothesis testing based upon the questionnaire investigation data.

(1) Setting Hypothesis

First of all, we start from the hypothesis testing.

Two main issues are set as follows.

A When they have a hard time in guiding club activities, they think that they want to have a person to consult with or it is better for the professionals to guide club activities.

B When they feel worthwhile to guide club activities, they feel less burden for it.

Next, we set the following 13 themes (sub issues) before setting Null hypothesis.

A-1 If they feel it burden to teach, they think that it is better for the professionals to guide club activities.

A-2 If they feel it burden to teach, they think that they cannot share enough time to prepare for teaching because of the workload for the guidance of club activities.

A-3 When they have a hard time for the technical guidance, they think that they want to have a person to consult with in guiding club activities.

A-4 When they have a hard time for the mental guidance, they think that they want to have a person to consult with in guiding club activities.

A-5 When they do not know the club field precisely, they think that they want to have a person to consult with in guiding club activities.

A-6 If they feel that they cannot share enough time to prepare for teaching because of the workload for the guidance of club activities, they think that they want to have a person to consult with in guiding club activities.

A-7 If they feel quite tired because of the activity on holiday, they think that they want to have a person to consult with in guiding club activities.

B-1 In the technical course, teachers in charge of club activities spare a lot of time.

B-2 Where the club activities are active, teachers in charge of club activities spare a lot of time.

B-3 Where the club is strong enough to participate in the national sports match, they feel worthwhile to guide club activities.

B-4 Even when they feel worthwhile to guide club activities, they feel it burden to guide club activities

B-5 Even when they feel worthwhile to guide club activities, they think that it is better for the professionals to guide club activities.

B-6 If the club activity is active, they feel worthwhile to guide club activities.

Now, we set the following 13 Null hypothesis.

Null Hypothesis

A-1 Even if they feel it burden to teach, they do not think that it is better for the professionals to guide club activities.

A-2 Even if they feel it burden to teach, they do not think that they cannot share enough time to prepare for teaching because of the workload for the guidance of club activities.

A-3 Even when they have a hard time for the technical guidance, they do not think that they want to have a person to consult with in guiding club activities.

A-4 Even when they have a hard time for the mental guidance, they do not think that they want to have a person to consult with in guiding club activities.

A-5 Even when they do not know the club field precisely, they do not think that they want to have a person to consult with in guiding club activities.

A-6 Even if they feel that they cannot share enough time to prepare for teaching because of the workload for the guidance of club activities, they do not think that they want to have a person to consult with in guiding club activities.

A-7 Even if they feel quite tired because of the activity on holiday, they do not think that they want to have a person to consult with in guiding club activities.

B-1 In the technical course, teachers in charge of club activities do not spare a lot of time.

B-2 Even if where the club activities are active, teachers in charge of club activities do not spare a lot of time.

B-3 Even if where the club is strong enough to participate in the national sports match, they do not feel worthwhile to guide club activities.

B-4 When they feel worthwhile to guide club activities, they do not feel it burden to guide club activities

B-5 When they feel worthwhile to guide club activities, they do not think that it is better for the professionals to guide club activities.

B-6 Even if the club activity is active, they do not feel worthwhile to guide club activities.

(2) Hypothesis Testing

χ^2 hypothesis Testing is executed for about teachers' consciousness. χ^2 hypothesis Testing is to clarify the difference between the expected value and the observed data, which is shown in Eq.(1).

$$\chi^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i} \tag{1}$$

Where O_i is an observed data and E_i is an expected value.

The results of statistical hypothesis testing are as follows.

Null Hypothesis A-1 : Even if they feel it burden to teach, they do not think that it is better for the professionals to guide club activities.

Summary table concerning Null Hypothesis 1 is exhibited in Table 3.1.

Table 3.1 Summary table concerning Null Hypothesis A-1

		Q 3-2					Total
		Think it very much	Slightly think so	Cannot say either	Slightly do not think so	Do not think so	
Q 2 - 1	Think it very much	5	2	0	0	0	7
	Slightly think so	8	9	1	0	0	18
	Cannot say either	8	26	12	1	0	47
	Slightly do not think so	25	23	16	1	1	66
	Do not think so	5	8	11	4	4	32
Total		51	68	40	6	5	170

Real number	Think so	Do not think so	Total
Think so	24	0	24
Do not think so	61	10	71
Total	85	10	95

Expectation	Think so	Do not think so	Total
Think so	21.47368	2.526316	24
Do not think so	63.52632	7.473684	71
Total	85	10	95

Statistic (χ^2 value)	3.777962
Rejection region (6% significance level)	Z > 3.5374

(Rejection region is over 6.6349 for 1% significance level, 3.841 for 5% significance level, 3.537 for 6% significance level and 2.874 for 9% significance level by 1 degree of freedom.)

The null hypothesis is rejected with 6% significance level. It can be said that if they feel it burden to teach, they think that it is better for the professionals to guide club activities.

Null Hypothesis: A-2 Even if they feel it burden to teach, they do not think that they cannot share enough time to prepare for teaching because of the workload for the guidance of club activities.

Hereinafter, only the results are exhibited because of the restriction of the paper volume.

The null hypothesis is rejected with 1% significance level. It can be said that if they feel it burden to teach, they think that they cannot share enough time to prepare for teaching because of the workload for the guidance of club activities.

Null Hypothesis: A-3 Even when they have a hard time for the technical guidance, they do not think that they want to have a person to consult with in guiding club activities.

The null hypothesis is rejected with 1% significance level. It can be said that when they have a hard time for the technical guidance, they think that they want to have a person to consult with in guiding club activities.

Null Hypothesis: A-4 Even when they have a hard time for the mental guidance, they do not think that they want to have a person to consult with in guiding club activities.

The null hypothesis is rejected with 1% significance level. It can be said that when they have a hard time for the mental guidance, they think that they want to have a person to consult with in guiding club activities.

Null Hypothesis: A-5 Even when they do not know the club field precisely, they do not think that they want to have a person to consult with in guiding club activities.

The null hypothesis is rejected with 1% significance level. It can be said that when they do not know the club field

precisely, they think that they want to have a person to consult with in guiding club activities.

Null Hypothesis: A-6 Even if they feel that they cannot share enough time to prepare for teaching because of the workload for the guidance of club activities, they do not think that they want to have a person to consult with in guiding club activities.

The null hypothesis is rejected with 1% significance level. It can be said that if they feel that they cannot share enough time to prepare for teaching because of the workload for the guidance of club activities, they think that they want to have a person to consult with in guiding club activities.

Null Hypothesis: A-7 Even if they feel quite tired because of the activity on holiday, they do not think that they want to have a person to consult with in guiding club activities.

The null hypothesis is rejected with 1% significance level. It can be said that if they feel quite tired because of the activity on holiday, they think that they want to have a person to consult with in guiding club activities.

Null Hypothesis: B-1 In the technical course, teachers in charge of club activities do not spare a lot of time.

The null hypothesis is rejected with 1% significance level. It can be said that in the technical course, teachers in charge of club activities spare a lot of time.

Null Hypothesis: B-2 Even if where the club activities are active, teachers in charge of club activities do not spare a lot of time.

The null hypothesis is rejected with 1% significance level. It can be said that where the club activities are active, teachers in charge of club activities spare a lot of time.

Null Hypothesis: B-3 Even if where the club is strong enough to participate in the national sports match, they do not feel worthwhile to guide club activities.

The null hypothesis is not rejected with 9% significance level. It cannot be said that even if where the club is strong enough to participate in the national sports match, they feel worthwhile to guide club activities.

Null Hypothesis: B-4 When they feel worthwhile to guide club activities, they do not feel it burden to guide club activities

The null hypothesis is not rejected with 9% significance level. It cannot be said that even when they feel worthwhile to guide club activities, they feel it burden to guide club activities

Null Hypothesis: B-5 When they feel worthwhile to guide club activities, they do not think that it is better for the professionals to guide club activities.

The null hypothesis is not rejected with 9% significance level. It cannot be said that even when they feel worthwhile to guide club activities, they think that it is better for the

professionals to guide club activities.

Null Hypothesis: B-6 Even if the club activity is active, they do not feel worthwhile to guide club activities.

The null hypothesis is rejected with 1% significance level. It can be said that if the club activity is active, they feel worthwhile to guide club activities.

4. Remarks

The Results for Hypothesis Testing are as follows.

Main issue A consists of 7 sub issues (A-1~A-7). All of their Null Hypotheses were rejected and the main issue A was insisted clearly. 6 sub issues were set for the main issue B. Three of their Null Hypotheses were rejected (B-1,B-2,B-6). Three of them were not rejected. But the statement of B-4 and B-5 are inversely expressed. Therefore, that it is not rejected means the consistency to the main issue B. Thus, it means that 5 out of 6 coincide with the main issue B substantially.

5. Conclusion

High School teachers in Japan are sending very busy days on their daily works including teaching, support for the club activities and deskwork. Among them, they share a lot of time for managing the club activities of students compared with other countries. In that area, professionals can make instruction much better than teachers for the special sports like Judo and Kendo (Japanese fencing) etc. School Social Worker can coordinate the professionals out of school and can help teachers by decreasing their burden on that area. There are few related papers concerning the support of club activities by utilizing the professionals outside. In this paper, questionnaire investigation is executed in order to clarify their current condition and their consciousness, and to seek the possibility of utilizing school social worker for their support. Hypothesis testing was executed based on that. We have set two such main issues as:

A When they have a hard time in guiding club activities, they think that they want to have a person to consult with or it is better for the professionals to guide club activities.

B When they feel worthwhile to guide club activities, they feel less burden for it.

For the A part, it consists of 7 sub issues and all of their Null Hypotheses were rejected and the main issue A was insisted clearly. For the B part, 6 sub issues were set and three of their Null Hypotheses were rejected. Three of them were not rejected. But the statement of B-4 and B-5 are inversely expressed. Therefore, that it is not rejected means the consistency to the main issue B. Thus, it means that 5 out of 6 coincide with the main issue B substantially.

Further study on this should be executed such as

multivariate analysis. Various cases should be investigated here after.