

Material

On the Anxiety for School Life
— from the analysis of a questionnaire survey towards
university students —

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(Accepted Nov. 14, 2009)

Key words: anxiety for school life, First Year Experience, university students, Japanese

Introduction

Recently many universities have started to prepare various special education curriculums for students in addition to the conventional lectures, according to the popularization of university education in Japan (e.g. now, 50% or more high school students enter a university [1] and some universities accept admission without tests of subjects to secure enough students necessary for running the school [2]).

One of them is the curriculum called the ‘remedial education program’ and the object is to give additional support for students to acquire sufficient ability to understand the lectures offered at university. The students are required to brush up on some subjects that they should have learned before entering the university. The target of this ‘remedial education program’ is not only first-year students but also all students who have some trouble with learning at their university because of a lack in their basic academic skills [3].

Another program is one specialized for first-year students called ‘First Year Experience’ and the object is to support first-year students preparing for the transition from high school to university.

For example, the first-year student orientation is often the beginning of the ‘First Year Experience’. The first-year student orientation program consists of familiarizing the new students with the campus and the resources it provides. Some institutions have an elaborate orientation schedule, including informational sessions, tours, skits, meals, and dances [4].

Some Japanese universities have begun to carry out a ‘Peer Support Program’ in the ‘First-Year Student Orientation’ to support the first-year students. This program aims to cultivate their social skills as a means to reduce the level of their anxiety they feel caused by their new school life which is much different from their high school life [5].

In this report, we address the issue showing that first-year students need some special support. Some reports suggest that there is an increasing number of university students who were not able to achieve the developmental tasks required at high-school [6]. For example, some students felt strong stress because they could not get along with others at university and others quit going to school because they could not find the reason to learn something new anymore. Most of these students dropped out sooner or later as they were not given the appropriate support at school [7]. In fact, the number of students who are not able to

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graduate from university has increased in this country [8].

What kind of support is useful for first-year students from the point of view of their adaptation to their new school life? First of all, it is very important to know their situation to answer this question. In our series of researches about university students since 2000, we have tried to make clear what happens to them in their school life [9–21], but their psychological situation relating to their school life has not been researched sufficiently.

Some research has made clear that university students who could not adapt well to school had a strong anxiety for school life. But there is little research on the anxiety for school life of first-year students just after entering university, which would give us a good hint on what to do in the First Year Experience.

The object of this report is to show such a clue in order to create a better First Year Experience to prevent their maladjustment to their school life. With the results from the questionnaire survey using the Scale for University Life Anxiety toward first-year students and second-year students, their anxiety level was measured and the factor analysis was done to clarify the structures of their anxiety for school life. Some facts relating to their anxiety level were also analyzed. Comparing the data of first-year students with that of second-year students, we provide a discussion on how to support first-year students to control their anxiety for school life.

Methods

1. Subjects

The subjects were 623 university students (male, 239; female, 384) belonging to X University. Most of the students study to be a co-medical staff member after graduation. The number of students in each grade and sex are shown in Table 1. The results of the first-year students were compared with that of the second-year students to make clear the tendencies of first-year students.

Table 1 The Results from the Text of Scale for University Life Anxiety

	Sex		Year in school		Total
	Male	Female	First	Second	
Number of students	239	384	158	465	623
Mean score	13.52	14.27	14.40	13.84	13.98
Standard deviation	6.87	5.43	5.95	6.05	6.03

2. Materials

This survey was made to measure the level of students' anxiety for their school life and to make clear their backgrounds. Contents of the questionnaire are as follows:

(a) The Scale for University Life Anxiety

The anxiety for school life, the 30-item scale by Fuji [22], was used (Table 2).

All items are rated on a two-point scale (yes=1, no=0). The range of scores is 0–30, the higher the score indicating more anxiety for their school life. The statistical analysis was done by using SPSS 14.0J.

(b) Their backgrounds relating to their anxiety for their school life

Referring to other studies [23–27], we asked the following on some students' experiences which were supposed to relate to their anxiety for the school life.

Table 2 The Scale for University Life Anxiety

1. I feel anxiety about how I am estimated by others at university.
2. I feel anxiety that I may not be able to graduate from university in four years.
3. I feel anxiety that I may flunk all tests to finish this school year.
4. I sometimes feel anxiety to think of situations when I might have an accident.
5. I feel anxiety that I may not be able to get along well with the seniors in my club .
6. I feel anxiety to think of situations when I may be late for the school in the morning.
7. I feel anxiety about how to behave whenever the teacher stands near me.
8. I feel anxiety that I may run short of my monthly cost of living.
9. I sometimes feel anxiety because I cannot understand some lectures.
10. I get nervous whenever I talk with teachers.
11. I feel anxiety about the reason whenever a teacher asks me to visit his/her office.
12. I feel anxiety that I may not be able to get a good job in the future.
13. I feel anxiety that I may fail in my performance during a class.
14. I feel anxiety that I may fail in required subjects.
15. I am always conscious about my academic record.
16. I feel depression whenever I think about my academic record.
17. I feel anxiety that I may flunk the tests which I registered for in this school term.
18. I feel anxiety that I may not be able to submit a good graduate thesis.
19. I sometimes feel depression when I feel confused about this university.
20. I began to feel anxiety without any particular reason since I entered this university.
21. I am willing to be transferred to another university or department.
22. I feel anxiety that I may belong to the wrong department for my future.
23. Sometimes I feel it is a good idea for me to quit the university.
24. I am upset whenever the remaining time of an exam comes close to the end.
25. I am upset whenever I come across questions that I cannot answer.
26. I always feel unfulfilled because I am too nervous during exams.
27. My voice sometimes quivers out of nervousness when I have to make a presentation at class.
28. I feel anxiety that I may fail an exam whenever I am taking one.
29. I feel anxiety that I may fail to cooperate well with friends when requested to do something together.
30. I feel anxiety that some cults may entice me to join them.

(1) Relationships among their family members

The students were required to assess their relationships among their family members about six items ('1. I feel my family members can ask each other for help frankly', '2. I get along well with my family members', '3. I feel proud of my family members', '4. I am going to take care of my parents when they become old', '5. I feel that my family members understand me enough', '6. I can talk frankly about anything with my family members') that have three answers ('Yes', 'No', or 'Unknown').

(2) Relationships among their friends at school

Students' relationships with other students in daily school life were reconfirmed according to Yoshida [9, 11, 13, 18].

In this report, a group is defined as 'a group unpremeditatedly formed by students belonging to the same faculty'.

Questions were asked about their relationships among their friends at school. First we checked whether they belonged to one or more specific 'self-generated group/groups in school. The students who answered that they belonged to the 'group', were required to answer the reasons why they belonged to the group. They could choose all applicable answers out of ten items ('1. Because I am compatible with them', '2. Because I can get various information about school life from them', '3. Because we have the same tastes', '4. Because they are friendly to me', '5. There are no particular reasons', '6. Because I hate feeling lonely and to find myself alone much', '7. Because I can enjoy talking with them', '8. Because I have almost the same values as they', '9. Because they can be a support for my weakness', '10. Because I have other

reasons’).

(3) Commitment to some activities at university

The students were also asked whether they have a commitment to some activities at university (‘1. Club activities at university’, ‘2. Volunteer activities at university’, ‘3. The activities for student union of the university’). They could choose the most applicable answer out of four items (1. I refuse to join it, 2. I want to join it at times, 3. I want to join it, 4. I have already joined it) about their commitment to these activities at university.

3. Procedures

In this report, a part of the data from the questionnaire survey conducted in April 2009 was analyzed. This was a part of a series of researches on the study about students’ adaptation to school life, which was approved by the Ethics Committee of Kawasaki University of Medical Welfare (No. 127).

Upon receiving informed consent, the questionnaire was handed out to each student after lectures in April 2009. The following informed consent agreements were written on the head of the sheet and also read aloud: 1. The object of this study is only to obtain mass data about students’ life in their university. 2. The data is calculated statistically and used only for this study. 3. Your participation in this research is voluntary. There is no obligation to answer all of the questions and you may choose not to write down your university registration numbers requested in the questionnaire sheet.

Seven hundred and ten sheets were collected. The percentage of the number of students’ responses available for analysis was 623 (88%).

Results

1. Results from the Scale for University Life Anxiety

(a) Scores of the Scale for University Life Anxiety

The mean and S.D. of the scores from the Scale for University Life Anxiety are shown in Table 1 and the histogram is described as Fig. 1. There were no significant differences between sexes and between grades in these mean scores.

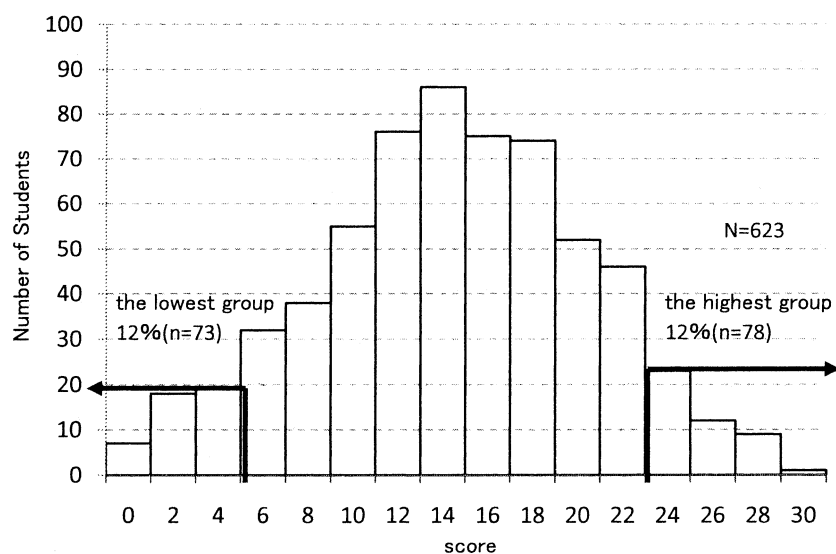


Fig. 1 Histogram on Score of the Scale for University Life Anxiety

In Fig. 1, the 12% of the total number of students (n=78) whose score was more than 22, is shown as the highest score student group, the 12% of the total number of students (n=73) whose score was less than 4 is shown as the lowest score.

(b) Result from the Factor Analysis of the scores on the Scale for University Life Anxiety

As in Fuji's study [22], factor analysis was done to examine the factor structure of the Scale for University Life Anxiety. According to Fuji's suggestion [22], we used to the methods of factor analysis (the principal factor analysis, varimax rotation method).

The number of factors which were extracted in Fuji's study [22] was decided from each scree plot (Fig. 2-4) referred to.

(1) Extracted factors in the total number of students

Three factors were extracted results (Table 3 and Fig. 2) from the factor analysis of the scores of the total number of students.

In Factor 1, '13. I feel anxiety that I may fail in my performance during a class', '28. I feel anxiety that I may fail an exam whenever I am taking one', and '18. I feel anxiety that I may not be able to submit a good graduate thesis' showed the middle factor loadings ('Factor loading' means the coefficients to tell how much weight is assigned to each factor for each variable [28, 29, 30]). The result suggests that these students felt anxiety about how they were evaluated on the tests and/or graduate thesis. This factor is interpreted as the factor showing 'Anxiety about evaluation'.

In Factor 2, '19. I sometimes feel depression when I feel confused about this university', '20. I began to feel anxiety without any particular reason since I entered this university', '23. Sometimes I feel it is a good idea for me to quit the university', '21. I am willing to be transferred to another university or department', '22. I feel anxiety that I may belong to the wrong department for my future' showed the middle factor loading. This factor is interpreted as the factor showing 'Dissatisfaction' at school.

In Factor 3, '3. I feel anxiety that I may flunk all tests to finish this school year', '2. I feel anxiety that I may not be able to graduate from university in four years', '17. I feel anxiety that I may flunk the tests

Table 3 The Results from Factor Analysis of the Scores of the Scale for University Life Anxiety (Total students)

Factor	Factor1	Factor2	Factor3
Items	Anxiety about evaluation	Dissatisfaction	Anxiety about the unattained
13. I feel anxiety that I may fail in my performance during a class	0.589		
28. I feel anxiety that I may fail an exam whenever I am taking one	0.568		
18. I feel anxiety that I may not be able to submit a good graduate thesis	0.542		
19. I sometimes feel depression when I feel confused about this university		0.702	
20. I began to feel anxiety without any particular reason since I entered this university		0.675	
23. Sometimes I feel it is a good idea for me to quit the university		0.662	
21. I am willing to be transferred to another university or department		0.632	
22. I feel anxiety that I may belong to the wrong department for my future		0.594	
3. I feel anxiety that I may flunk all tests to finish this school year			0.760
2. I feel anxiety that I may not be able to graduate from university in four years			0.784
17. I feel anxiety that I may flunk the tests which I registered for in this school term			0.500
eigenvalue	6.479	2.579	1.553
proportion of variance explained	20.778	7.108	3.600

The factor loadings for each item after varimax rotation were shown. N=623

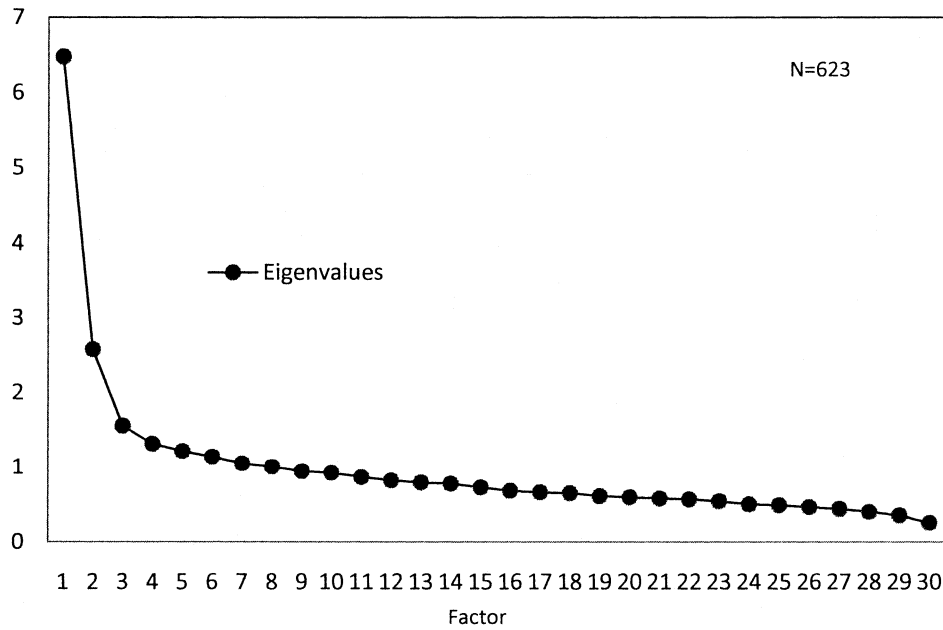


Fig. 2 Scree Plot of Eigenvalues from the Principal Factor Analysis (Total students)

which I registered for in this school term' showed the middle factor loading. This factor suggests that these students felt anxiety that they could not attain what they were requested to achieve in order to graduate from school and could be interpreted as 'Anxiety about the unattained'.

There were no differences in these extracted factors between male and female students

(2) Differences of factors between the first and second year students

There were some differences in extracted factors between first-year and second-year students' results from the factor analysis.

In the first-year students, three factors were extracted results from the factor analysis of the scores (Table 4 and Fig. 3).

In Factor 1, '13. I feel anxiety that I may fail in my performance during a class', '10. I get nervous whenever I talk with teachers', and '5. I feel anxiety that I may not be able to get along well with the seniors in my club' showed the middle factor loading. It suggests that these students felt anxiety about their social skills to get along well with their classmates, teachers and seniors. This factor is interpreted as 'Anxiety about their social skills'. It was found that this anxiety was specific for the first-year students because this factor was not extracted in the second-year students.

In Factor 2, '2. I feel anxiety that I may not be able to graduate from university in four years', '17. I feel anxiety that I may flunk the tests which I registered for in this school term', '14 I feel anxiety that I may fail in required subjects', '18. I feel anxiety that I may not be able to submit a good graduate thesis' showed the middle factor loading. It suggests that these students felt anxiety that they might fail in required subjects in classes and they were afraid that they might fail to graduate from school in the worst case. This factor is interpreted as the factor showing 'Anxiety about failure'. This factor was also specific for the first-year students.

In Factor 3, '23. Sometimes I feel it is a good idea for me to quit the university', '22. I feel anxiety that I may belong to the wrong department for my future', '21. I am willing to be transferred to another university or department', '20. I began to feel anxiety without any particular reason since I entered this university', '19. I sometimes feel depression when I feel confused about this university' showed the middle

Table 4 The Results from Factor Analysis of the Scores of the Scale for University Life Anxiety (First-year students)

Factor	Factor1	Factor2	Factor3
Items	Anxiety about social skills	Anxiety about failure	Dissatisfaction
13. I feel anxiety that I may fail in my performance during a class	0.572		
10. I get nervous whenever I talk with teachers	0.545		
5. I feel anxiety that I may not be able to get along well with the seniors in my club	0.529		
2. I feel anxiety that I may not be able to graduate from university in four years		0.684	
17. I feel anxiety that I may flunk the tests which I registered for in this school term		0.620	
14. I feel anxiety that I may fail in required subjects		0.619	
18. I feel anxiety that I may not be able to submit a good graduate thesis		0.508	
23. Sometimes I feel it is a good idea for me to quit the university			0.705
22. I feel anxiety that I may belong to the wrong department for my future			0.698
21. I am willing to be transferred to another university or department			0.684
20. I began to feel anxiety without any particular reason since I entered this university			0.627
19. I sometimes feel depression when I feel confused about this university			0.610
eigenvalue	6.864	2.974	1.645
proportion of variance explained	19.344	8.356	3.289

The factor loadings for each item after varimax rotation were shown. n=158

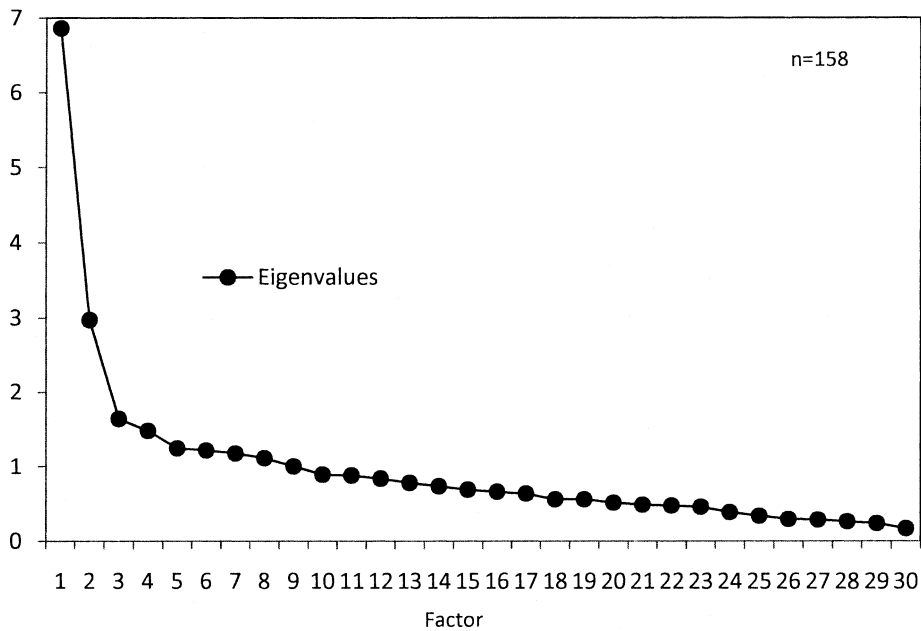


Fig. 3 Scree Plot of Eigenvalues from the Principal Factor Analysis (First-year students)

factor loading. It suggests that there were students who felt such dissatisfaction at school as to think of dropping out even when only almost one month had passed since they entered the university.

In the second-year students, three factors were extracted (Table 5 and Fig. 4).

In Factor 1, '28. I feel anxiety that I may fail an exam whenever I am taking one', '18. I feel anxiety that I may not be able to submit a good graduate thesis', '13. I feel anxiety that I may fail in my performance during a class', '11. I feel anxiety concerning the reason whenever a teacher asks me to visit his/her office',

Table 5 The Results from Factor Analysis of the Scores of the Scale for University Life Anxiety (Second-year students)

Factor	Factor1	Factor2	Factor3
Items	Self-diffident	Dissatisfact ion	Anxiety about failing to graduate
28. I feel anxiety that I may fail an exam whenever I am taking one	0.611		
18. I feel anxiety that I may not be able to submit a good graduate thesis	0.586		
13. I feel anxiety that I may fail in my performance during a class	0.579		
11. I feel anxiety about the reason whenever a teacher asks me to visit his/her office	0.524		
9. I sometimes feel anxiety because I cannot understand some lectures	0.514		
19. I sometimes feel depression when I feel confused about this university		0.694	
20. I began to feel anxiety without any particular reason since I entered this university		0.692	
23. Sometimes I feel it is a good idea for me to quit the university		0.632	
22. I feel anxiety that I may belong to the wrong department for my future		0.628	
21. I am willing to be transferred to another university or department		0.572	
3. I feel anxiety that I may flunk all tests to finish this school year			0.772
2. I feel anxiety that I may not be able to graduate from university in four years			0.763
eigenvalue	6.467	2.563	1.543
proportion of variance explained	20.743	7.002	3.634

The factor loadings for each item after varimax rotation were shown.n=465

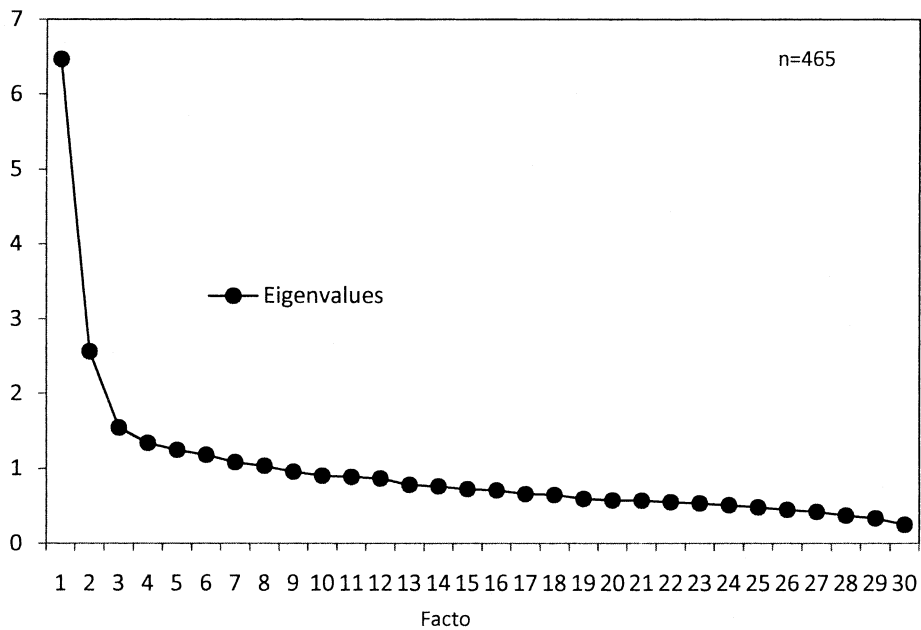


Fig. 4 Scree Plot of Eigenvalues from the Principal Factor Analysis (Second-year students)

‘9. I sometimes feel anxiety because I cannot understand some lectures’ showed the middle factor loading. This factor was specific for the second-year students. The second-year students felt anxiety about not only failing to pass the required performances/subjects at school but also about how much they could understand of the lectures and concerned about their teacher’s consideration for students. Differing from the first-year students, as they seemed to begin to doubt their own ability needed to understand lectures at school, this factor was interpreted as the ‘Self-diffident’.

In Factor 2, ‘19. I sometimes feel depression when I feel confused about this university’, ‘20. I began to feel anxiety without any particular reason since I entered this university’, ‘23. Sometimes I feel it is a good idea for me to quit the university’, ‘22. I feel anxiety that I may belong to the wrong department for my future’, ‘21. I am willing to be transferred to another university or department’ showed the middle factor loading. This factor is the same as in Factor 3 in the first-year students and interpreted as ‘Dissatisfaction’. It suggests that there were also second-year students who felt such dissatisfaction at school as to think of dropping out.

In Factor 3, ‘3. I feel anxiety that I may flunk all tests to finish this school year’, ‘2. I feel anxiety that I may not be able to graduate from university in four years’ showed the middle factor loading. This factor was not extracted in the first-year students. It suggests that the second-year students could be afraid that they might fail to graduate from school much more strongly than the first-year students. This factor is interpreted as the factor showing ‘Anxiety about failing to graduate’.

2. Their backgrounds relating to their anxiety for their school life

In this report we also researched some backgrounds which were suggested to relate to the students’ anxiety for their school life by some reports.

(a) Relationships among their family members

The students were required to assess the relationships among their family members. The results are shown in Table 6. The items to which 70% or more students answered ‘Yes’ were as follows: ‘1. I

Table 6 The Social Relationships of Students

Relationships among their family members	Yes		No		Unknown			
	n	%	n	%	n	%		
1. I feel my family members can ask each other for help frankly	519	83	19	3	85	14		
2. I get along well with my family members	451	72	43	7	129	21		
3. I feel proud of my family members	432	69	41	7	150	24		
4. I am going to take care of my parents when they become old	365	59	46	7	212	34		
5. I feel that my family members understand me enough	346	56	89	14	188	30		
6. I can talk frankly about anything with my family members	281	45	156	25	186	30		
Relationships among their friends at school	Yes		No					
	n	%	n	%				
a. I belong to the 'group (s)' *	574	92	49	8				
b. The reasons why the students belong to their 'group'	-----							
1. Because I am compatible with them	374	65	249	35				
2. Because I can get various information about school life from them	144	25	479	75				
3. Because we have the same tastes	127	22	496	78				
4. Because they are friendly to me	188	33	435	67				
5. There are no particular reasons	44	8	579	92				
6. Because I hate feeling lonely and to find myself alone much	119	21	504	79				
7. Because I can enjoy talking with them	399	70	224	30				
8. Because I have almost the same values as they	109	19	514	81				
9. Because they can be a support for my weakness	46	8	577	92				
10. Because I have other reasons	29	5	594	95				
c. I was a victim of bullying at school	207	33	416	67				
Commitment to some activities at university	Refuse to join		Want to join at times		Want to join		Already joined	
	n	%	n	%	n	%	n	%
1. Club activities at university	34	5	152	24	111	18	326	52
2. Volunteer activities at university	38	6	310	50	179	29	96	15
3. The activities for student union of the university	217	35	315	51	48	8	43	7

* 'Group' means a group unpremeditatedly formed by students belonging to the same faculty

feel my family members can ask each other for help frankly' (Yes, 83%), '2. I get along well with my family members' (Yes, 72%). On the contrary, the items to which 40% or more students answered 'No' or 'Unknown' were as follows: '3. I feel proud of my family members'(No, 7% Unknown, 24%), '4. I am going to take care of my parents when they become old' (No, 7% Unknown, 34%), '5. I feel that my family members understand me enough' (No, 14% Unknown, 30%). '6. I can talk frankly about anything with my family members' (No, 25% Unknown, 30%).

In all items, there were no significant differences in the percentage of students who chose each answer between the first-year and second-year students, and between male and female students.

(b) Relationships with their friends at school

Five hundred and seventy four students (92%) belonged to 'group(s)'. These facts were almost the same as Yoshida's research in 2001–2007. They were asked about the reasons for belonging to their 'group'. Seventy percent of the students answered '7. Because I can enjoy talking with them.' and 65% chose '1. Because I am compatible with them'.

Thirty-three percent of the students answered 'I was a victim of bullying at school'.

In all items, there were no significant differences in the percentage of students who chose each answer between the first-year and second-year students, and between female and males students.

(c) Commitment to activities at university

Three hundred and twenty two students (52%) committed to 'Club activities at university'. Fifty percent or more students wanted to 'join at times' to 'volunteer activities' and/or 'the activities for the student union of the university'. There were no significant differences in the percentage of students who chose each answer between the first-year and second-year students, and between male and female students.

3. Analysis of the effects of their backgrounds to the scores of the scale for University Life Anxiety

We analyzed whether there were any significant differences in the mean score of the scales for University Life Anxiety among the groups divided by the answers to each item on their backgrounds.

There were some significant differences in the means of scores from the scale for University Life Anxiety among the student groups divided into three groups according to their answers (yes, no, unknown) on the items that asked about the relationships among their family members (Table 7). The mean scores of the students who answered 'unknown' to the items '4. I am going to take care of my parents when they become old', '2. I get along well with my family members', were significantly higher than those of other student groups who chose 'yes' or 'no' ($F=3.631, p<.05, F=6.599, p<.01$). The mean score of students who answered 'No' to the item '5. I feel that my family members understand me enough', was significantly

Table 7 Scores of Scale for University Life Anxiety and Their Social Relationships

	Yes	No	Unknown
Relationships among their family members			
4. I am going to take care of my parents when they become old. ¹⁾	13.69	12.57	14.79
5. I feel that my family members understand me enough. ²⁾	13.16	15.42	14.80
2. I get along well with my family members ³⁾	13.47	14.49	15.60
The reasons why the students belong to their group.			
6. Because I hate feeling lonely and to find myself alone much ⁴⁾	15.36	13.65	–
4. Because they are friendly to me ⁵⁾	14.85	13.60	–

Only items which had significant differences among the mean scores of the student groups, who chose Yes, No, or Unknown, are shown with the mean score.

1) $F=3.631, p<.05$, 2) $F=7.578, p<.01$, 3) $F=6.599, p<.01$

4) $t=2.797, p<.05$, 5) $t=2.368, p<.05$

higher than those of other student groups who chose 'yes' or 'unknown' ($F=7.578$, $p<.01$).

There were some significant differences in the means of scores from the scale for University Life Anxiety among the student groups divided into two groups according to their answers (yes, no) on the items that asked about the reason why they belonged to their 'group' at school (Table 7). The mean scores of the scale of the student group who answered 'yes' to the items '6. Because I hate feeling lonely and to find myself alone much' and '4. Because they are friendly to me' were significantly higher than those of student group who chose 'no' ($t=2.797$, $p<.05$, $t=2.368$, $p<.05$).

Then, using the histogram (Fig. 1) we tried to make clear the difference of backgrounds between 'the highest group' and 'the lowest group' results from the scale for University Life Anxiety. In Table 8, in each item, the percentages of the number of students who chose each answer in the number of students belonging to the highest group or the lowest group were shown. Only items which had significant differences between the percentages of two groups were extracted for this table. In the students whose score result from the scale for University Life Anxiety constituted to 'the highest group', that is to say in the students who felt the strongest anxiety for their school life, 58% answered that they could NOT get along with their family, 71% thought that family does NOT understand them, 64% answered that they were the victim of bullying in the past, and 70% said that they belonged to their group at school because they felt lonely.

Table 8 Relation between the Scores of the Scale for University Life Anxiety and Backgrounds

	The lowest group (n=73)	The highest group (n=78)	χ^2 score
2.I can get along well with my family members			
Yes	60(61%)	39(39%)	11.469, $p<.01$
No	5(42%)	7(58%)	
Unknown	11(29%)	27(71%)	
5.My family members understand me			
Yes	50(63%)	30(37%)	10.199, $p<.01$
No	7(29%)	17(71%)	
Unknown	19(42%)	26(58%)	
c.I was a victim of bullying in the past			
Yes	19(36%)	34(64%)	7.653, $p<.01$
No	57(59%)	39(31%)	
b.The reasons why I belong to the group			
6.Because I feel lonely			
Yes	9(30%)	21(70%)	6.633, $p<.05$
No	67(56%)	52(44%)	

Discussion

One of the important findings of this research was that some specific factors were extracted only in the first-year students by the factor analysis toward the data from the scale of the anxiety for university life, in spite of there being no significant difference of the mean scores in this scale between the first-year and the second-year students. It means that the anxiety level of the first-year students was not different from that of the second-years students, but the causes of the anxiety was different in each year.

Only in the first-year students, the factor showing their anxiety for their social skills was extracted. It demonstrates that the first-year students who just entered the university one month ago felt strong anxiety as to whether they could get along well with their new classmates, new teachers, and new seniors. Kawakami [31] had already pointed out such a strong anxiety of the first-year students for human relationships. In Japan, 'the bullying at school' has been one of the most serious problems for school life and every year there are reports of suicides of students because of the suffering from the bullying by their classmates [32].

Almost 33% of the number of students in this research answered that they had experienced being the victim of bullying. Before they became university students, they had learned very well that it is a nightmare to be the victim of bullying at school because they failed to make good relationships with others. These students may be able to feel comfortable once they can make sure that they are accepted and welcomed by the people whom they meet at the university.

Now, the university professors should understand that there are some students who cannot relate to others without appropriate support because of lack of social skills and sometimes they may feel even fear when their names are called in class.

Some universities have already begun to support the first-year students just after beginning of the school year so they would not have any difficulties in their relationships with others. For example, some universities offer the 'peer support program' for the first-year students to adapt well to their new human relationships [33, 34, 35]. Sometimes it is carried out as one of the orientation programs for the first-year students. Under the supportive and acceptable atmosphere, the first-year students can not only find new friends without embarrassment but also get more information about their new school life from the seniors.

Such a 'peer support program' may be able to solve another problem, namely their anxiety over their academic skills required to graduate from university. Results from the factor analysis showed that they felt anxiety over their possible failure to graduate from university. They doubted that they had enough academic skills to accomplish whatever they might be required to do at school. This anxiety seemed to be caused by lack of experience at university because they had only experienced the tests at high schools up to then and could not even image what was required at the lectures at university. This type of anxiety may be solved partly by the seniors offering them enough information about their new school life such as how to study and how to prepare for the exams. The 'peer support' can be helpful also on this point.

But from the point of view of 'development of academic skills', the positive support from professors will be more helpful because some seniors may only end up in 'teaching' them how to skip school.

In fact, the factor showing some kind of anxiety for the 'unattained' that they are required to do for graduation was extracted also in second-year students. Differing from the first-year students, they had already experienced the tests at university and understood well how hard they had to study to pass the exams.

Ninomiya, et.al. [36] made clear that 'easy-going attitudes towards classes' had related to the level of 'anxiety about academic records'. If these second-year students could have developed enough academic skills when they were first-year students, they might have been able to have the confidence for their skills to achieve their goals. The remedial education can be useful for these students.

This point is a very important clue to solve another problem shown by the factor analysis. In both the first and the second year students, the factor which was interpreted as 'dissatisfaction with the university', was extracted. Even in the first-year students just a month after entering school there were some students who felt that it was a good idea to quit the university. This fact suggested strongly that these students needed a positive approach from professors/staff to support them in finding the motivation to study at university.

First of all, in their efforts to support students, the professors/staff should be aware of what their students think and feel about their school life. Once the reasons why they feel the dissatisfaction with the university are found, it could give clues on how to support them.

As Takai [37] mentioned, it is good for the students to be given the various chances to understand their own internal situations by themselves because it can be a good education for them to learn the best way to control their stress and to manage their anxiety by themselves through their school life. This can be helpful to control their own lives by themselves even after graduating from university.

On the other hand, it was found that the students who could not get along well with their family felt strong anxiety for school life compared to those who kept good relationships with their family. It was reported that the students showing enough confidence for the attachment to their family members could cope well with stress arising from their anxiety for school life [38]. The students who have difficulties for the normal school life because of their family problems should be given support from professional counselors or social workers individually, and it is an important task for professors/staff to quickly notice these students and to lead them to the most suitable support.

Conclusion

The anxiety of the first-year and second-year students was researched using the scale of the anxiety for university life to understand their needs to adapt to the university. Three factors were extracted from the factor analysis. Compared to the second-year students, the first-year students showed their anxiety for their social skills. It suggested that they needed the support to develop their social skills. Both the first and second year students had anxiety for their academic skills, and it meant that the remedial education was helpful for these students. And it suggested that the students who had an anxiety caused by their dissatisfaction with the university were found in not only the second-year students but also in the first-year students only one month after they became university students. We discussed that the support for the development of their motivation to study at university was also important for such students. Once the students can learn the way to manage their anxiety by themselves, it will be helpful for them even after they graduate from the university.

A follow up research is needed to know how the students' anxiety level changes as their social and academic skills develop through education programs to give them a better first-year experience with the university.

The first priority of the university professors/staff is to have chances to realize the students' needs to give them better support.

Acknowledgements

We would like to thank Ms. Akiko Watanabe for her guidance and helpful advice on English in this paper.

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