

Trends in Rural, Agricultural and Forestry Activities by University Students and Changes in Attitude after the Activities

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An increasing number of individuals, mainly university students from urban areas, are autonomously participating in agriculture and forestry experience-based clubs and experiencing agricultural and forestry activities in rural districts. To survey the motivations for participating in these activities and the changes in their attitudes after the activities, including the influence on their career pursuance, an interview and questionnaire survey were conducted three times before, immediately after, and one month after the activities. The study targeted students of eight clubs from universities located in urban areas that had been engaged in such activities for a long time. This paper presents the result of the study.

The students motivations to participate were broadly categorized into three groups: those related to “an interest in something unusual,” including participating in something that could be done only during their university days, something new, or something not usually done in urban areas; those related to “an interest in agriculture, forestry and rural districts,” including food, agriculture, forestry and people living in rural districts; and those related to “an interest in interacting with people,” including local people and other participants.

According to the factor analysis from the questionnaire data before the activities, respondents had two factors about expectation from their participation in the activities, namely, a “desire for agriculture, forestry and rural district experiences” and “career pursuance” (Table 1).

The relationship between these two factors (Figure 1) indicates that the “desire for agriculture, forestry and rural district experiences” factor does not influence “career pursuance” factor; Thus no relationship was found such as students’ career pursuance are influenced in accordance with their agriculture, forestry and rural district experiences.

When the same questionnaire was conducted immediately after the activities, the above factors changed to the “self- growth” and “understanding agriculture and forestry then utilizing it practically as an own career” (Table 2).

The relationship between these two factors (Figure 2) indicates that the “understanding agriculture and forestry then utilizing it practically as an own career” factor

Table 1. Questionnaire regarding changes in one's attitude due to experiences in agriculture, forestry and rural districts and factor loading (Questionnaire conducted before the activities)

Content of Questions	Factor 1	Factor 2
1 I think it will widen my perspectives.	0.4982	0.2353
2 I think it will enable me to grow.	0.5386	0.1528
3 I think it will enable me to understand about my field of study at the university.	− 0.1238	0.6657
4 I think it will be useful for future employment activities and jobs.	0.1395	0.6062
5 I think I will understand the difficulties involved in cultivating agricultural products and growing trees.	0.4320	0.1537
6 I think I will be able to understand the agriculture and forestry related problems faced by farmers and forestry workers.	0.4230	0.2296
7 I think I will understand the connection between our lives and agriculture, forestry and nature.	0.7009	− 0.0414
8 I think I will feel the charm of the place I visit.	0.6542	− 0.2105

Note: N = 147; Major factor method, promax rotation; Till eigenvalue 1; 38.2% and 15.0%, in order of contribution ratio.

Table 2. Questionnaire regarding changes in one's attitude due to experiences in agriculture, forestry and rural districts and factor loading (Questionnaire conducted immediately after the activities)

Content of Questions	Factor 1	Factor 2
1 I think it will widen my perspectives.	0.9040	− 0.0407
2 I think it will enable me to grow.	0.8797	0.0242
3 I think it will enable me to understand about my field of study at the university.	0.3271	0.1444
4 I think it will be useful for future employment activities and jobs.	0.1942	0.4182
5 I think I will understand the difficulties involved in cultivating agricultural products and growing trees.	− 0.0096	0.5601
6 I think I will be able to understand the agriculture and forestry related problems faced by farmers and forestry workers.	− 0.0682	0.7128
7 I think I will understand the connection between our lives and agriculture, forestry and nature.	0.2242	0.5299
8 I think I will feel the charm of the place I visit.	0.2503	0.4791

Note: N = 141; Major factor method, promax rotation; Till eigenvalue 1; 43.1% and 14.1% , in order of contribution ratio.

Table 3. Questionnaire regarding changes in one's attitude due to experiences in agriculture, forestry and rural districts and factor loading (Questionnaire conducted one month later after the activities)

Content of Questions	Factor 1
1 I think it will widen my perspectives.	0.7987
2 I think it will enable me to grow.	0.7468
3 I think it will enable me to understand about my field of study at the university.	0.6317
4 I think it will be useful for future employment activities and jobs.	0.5638
5 I think I will understand the difficulties involved in cultivating agricultural products and growing trees.	0.5035
6 I think I will be able to understand the agriculture and forestry related problems faced by farmers and forestry workers.	0.4280
7 I think I will understand the connection between our lives and agriculture, forestry and nature.	0.6732
8 I think I will feel the charm of the place I visit.	0.7399

Note: N = 82; Major factor method, promax rotation; Till eigenvalue 1; contribution ratio was 48.5% .

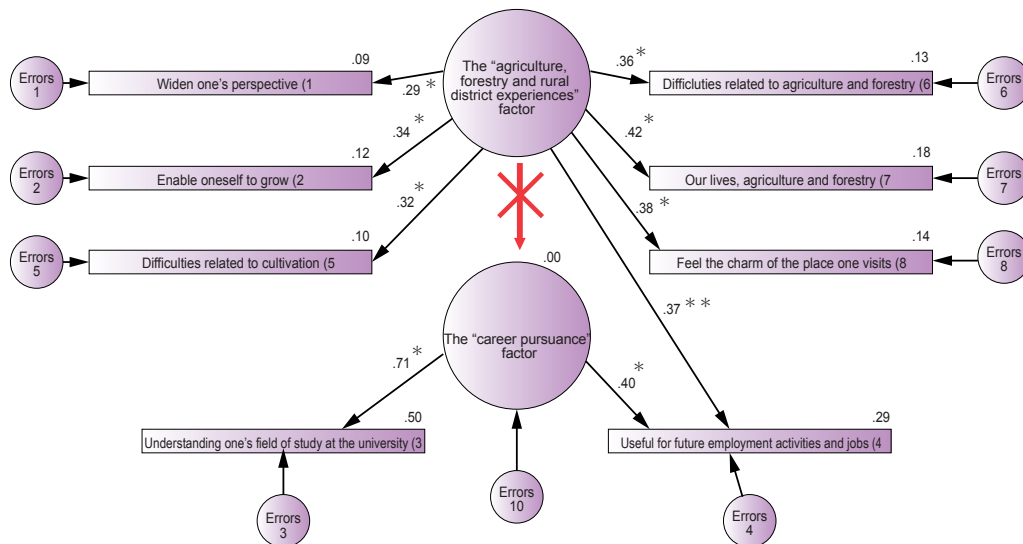


Figure 1. Path analysis of questionnaire conducted before the activities (Co-variance Structure Analysis)

Note: The numbers denote the standardized coefficients (arrow portion) and intercepts (fore quarter of the independent coefficient).
*: 5% significance **: 1% significance

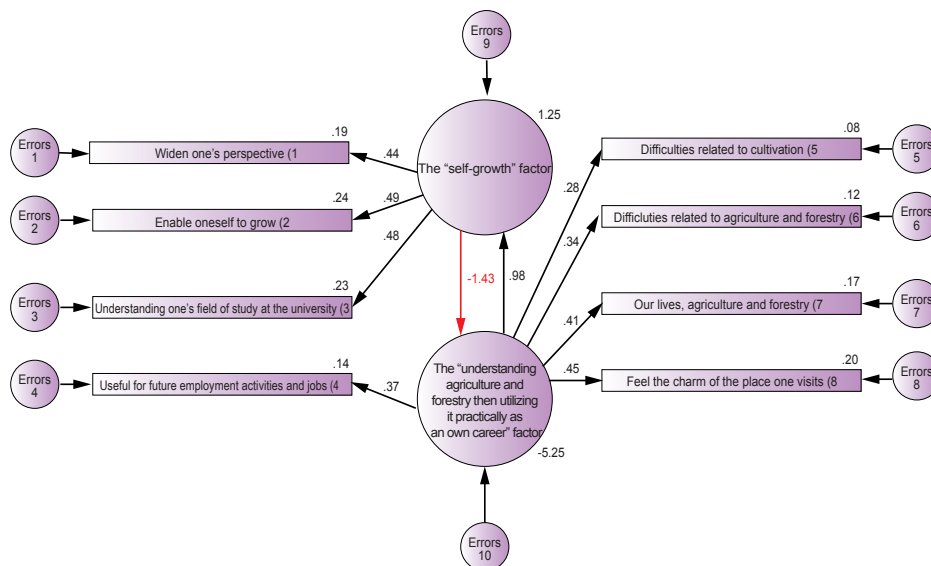


Figure 2. Path analysis of the questionnaire conducted immediately after the activities (Co-variance Structure Analysis)

Note: The numbers denote the standardized coefficients (arrow portion) and intercepts (fore quarter of the independent coefficient) and all represent 1% significance.

strongly influences the “self-growth” factor (0.98), and through this factor, also positively influences Questions from 1 to 3. On the other hand, the “self-growth” factor negatively influences the “understanding agriculture and forestry then utilizing it practically as an own career” factor (-1.43) and the other variables through the “understanding agriculture and forestry then utilizing it practically as an own career” factor. For example, there is a negative influence of $-1.43 \times 0.37 = -0.529$ from the “self-growth” factor to the question “I think it will be useful for future employment activities and jobs” through “understanding agriculture and forestry then utilizing it practically as an own career” factor. This means while students with a high awareness of “understanding agriculture and forestry then utilizing it practically as an own career” positively influence “self-growth”, students with a high awareness of “self-growth” does not positively influence the awareness of “understanding agriculture and forestry then utilizing it practically as an own career”.

Finally, when the same questionnaire was conducted one month later after the activities, the “career pursuance based on agriculture, forestry and rural district experiences” factor was observed, including all the variables (questions) in the questionnaire (Table 3). Thus, we can assume that after the time passage from the activities, these students could connect their agriculture, forestry and rural districts experiences, university studies and future career together as one, and started to think of practically using it in their life.

Next, in questions about the students' attitudes regarding work and life, One factor "desire to have interaction in rural communities," which included questions such as "10 It is important to support the local community by interacting with people from different generations" and "12 Happiness can be experienced more in rural areas than in cities," were observed one month later (Table 4). Also, "understanding the importance of steady work" factor, which was generated by questions such as "16 I think I want to enrich the lives of others through my work" and "18 I think consistent and sincere efforts at work lead to significant achievements," was observed (Table 5).

Compiling these factors, after agriculture, forestry and rural district experiences, we observed that respondents acquired the effect of "attitudes to support the local community" among others, along with "understanding the occupation of agriculture," "understanding one's aptitude area," and "cultivation of basic abilities as members of society"

Furthermore, in interview survey from eight clubs, the experiences were connected to students' career related to agriculture, forestry and rural district. Some of OB/OG chose to work for agriculture and forestry BtoB/BtoC/CtoC sector such as Japan Agricultural Cooperatives (JA) and sixth sector industrialization business organizations (about 5% of the respondents), or the food manufacturing industry. Some of OB/OG did I-turn to the rural district and became employees in the rural municipalities and so and chose to live in rural district.

Table 4. Questions regarding attitudes about work and life and factor loading (Questionnaire conducted one month later after the activities)

Content of Questions	Factor 1	Factor 2	Factor 3
9 I think it is important to be completely absorbed when engaging in things.	0.1363	0.0249	0.4057
10 I think it is important to support the local community by interacting with people from different generations.	0.1085	-0.1321	0.9404
11 I cannot live without smartphones or internet.	0.1902	0.5373	-0.1671
12 Happiness can be experienced more in rural areas than in cities.	0.0508	0.4903	-0.3146
13 I think happiness can be experienced by owning things.	-0.1445	0.9226	0.2076
14 I think happiness can be experienced by connecting with people.	0.5201	0.0597	0.0933
15 I think I want to work in a job I can feel proud about.	0.9096	0.0795	0.0762
16 I think I want to enrich the lives of others through my work.	0.4440	-0.0518	0.0823

Note: N = 82; Maximum likelihood method, promax rotation; Till eigenvalue 1; 31.6%, 21.2%, 12.9%, in order of contribution ratio.

Table 5. Questions regarding attitudes about work and life and factor loading (Questionnaire conducted one month later after the activities)

Content of Questions	Factor 1
15 I think I want to work in a job I can feel proud about.	0.7105
16 I think I want to enrich the lives of others through my work.	0.6753
17 I think even things that were considered boring can become interesting if one works creatively.	0.6756
18 I think consistent and sincere efforts at work lead to significant achievements.	0.6308
19 I think my ideas widen when I identifies values that are different from me.	0.8822
21 I think I cannot be motivated if I cannot do what I want to do.	-0.2583

Note: N = 53; Maximum likelihood method, promax rotation; till eigenvalue 1; Contribution ratio was 52.3%; Question 20 has been excluded as it has a high correlation coefficient with other questions.