

Research on the Sense of Happiness of College Students in Agricultural Education

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Abstract: For human beings, “how to become happy” is an exceedingly critical question. It is worthwhile to examine what educational contents make children happy in the educational field as well. Therefore, this study proposes the hypothesis: "Can people become happy through agricultural work?" This paper aims to elucidate the actual level of happiness of college students studying agricultural education in their agricultural experiences.

As the methods for the study, the paper carried out a survey on Agriculture and Happiness, and performed an analysis of the valid responses of 119 college students on the relationship between each attribute listed in the survey and a sense of happiness. The following was made clear in the results.

1. College students who had a previous experience with and an interest in agricultural work scored highly on total points of happiness.
2. The way to form meaning-oriented sense of happiness through agricultural work was an important factor.

Keywords – happiness, agricultural experience, agricultural learning, college students

I. INTRODUCTION

For humans, “how to become happy” has been a theme to think about since long ago. A survey of 3,000 people's level of happiness carried out by the Japanese cabinet indicated that compared to other countries, Japanese people have a low level of happiness [1]. According to a survey conducted by the Sustainable Development Solutions Network (SDSN), the happiness level of Japanese people also showed low in comparison with other countries [2]. For this, school education plays an important role; in order to improve people's level of happiness, the study of “how children can become happy” is of extreme significance.

In recent years, there has also been attention given to positive psychology [3]. Scientific research on people's happiness has been conducted by many researchers. Previous research shows there is a tendency towards a view of three types of happiness: *pleasure-oriented*, *meaning-oriented*, and *engagement-oriented* [4]. Referencing these definitions from previous research, this study defines happiness as people being able to feel a sense of enjoyment and satisfaction, being engaged in the work at hand, and being able to discover meaning in the end.

This study focuses on the type of happiness that relates to agricultural education within technical education. This is because given the state of society today, people might be able to become happy through agricultural work. In the Japanese compulsory educational system, agricultural education is currently taught as part of the *Art and Craft* course in the junior high school. As of 2015, studies related to agriculture are handled in the "Cultivation of Living Things" course. The goal in this course is for students to acquire various capabilities such as (1) a foundational understanding and basic skills related to the cultivation of living things; (2) an understanding of the role and effects of society and the environment; (3) and the ability to appropriately evaluate and apply this understanding. The course also expects students to have pleasant experiences when cultivating as well as in growing and harvesting living things, while deepening the understanding of work related to such things [5].

The Japanese Ministry of Agriculture, Forestry, and Fisheries defines the multifaceted functions of agriculture and agricultural communities as "functions which extend beyond the supply of food and other agricultural products that are produced in villages through agricultural activity to the preservation of the

country, cultivation of the rivers, conservation of the natural environment, the molding of pleasant scenery, and cultural transmission" [6]. In the educational field, agriculture and agricultural communities are also expected to play such multiple functions as supporting the inheritance of culture; healing and instilling peace; providing experiential study and education; and supporting a variety of interactions.

Agriculture in general refers to the general labor process in agricultural production areas where fields are cultivated and domesticated animals are raised [7]. People should then be able to find pleasure, be engaged in their work, and finally find meaning in the agricultural actions of this labor process.

With such perspectives in mind, this study sees that learning experiences concerning the multifaceted functions of agriculture and agricultural communities are capable of encompassing all of the three happiness orientations, i.e. *pleasure, meaning, and engagement*. However, if the instructor does not himself or herself feel a sense of happiness, it will be difficult for the children to feel happy. It is exceedingly important that when the college students who are studying agricultural education teach the children who will become future educators that they themselves convey the sense of happiness they get from agricultural experiences.

Therefore, this study poses the hypothesis: "Can people become happy through agricultural work?" To study this, the study aims to elucidate the true feelings of college students studying agricultural education in their agricultural experiences.

II. APPROACH

A. Set of survey items

In this study, a survey relating to agriculture and happiness was first drafted and a questionnaire made from all 19 items was then conducted. The first part of the survey (Questions 1 to 5) survey questions relates to personal attributes such as gender and year at school. The 3 questions from Q. 6 to 8 were concrete questions relating to agricultural work, such as their experience with agriculture up to that point and their interest in it.

Questions 9 through 17 investigated the three orientations of happiness (*pleasure, meaning, and engagement*) with reference to previous research [3][4][8]. The survey questions relating to happiness were 9 in number (Table 1), all with 5 stepped answers from "I think so" to "I don't think so."

Table 2 shows the content for the attribute and interest questions in along with the frequency of given responses.

Table -1 Items about happiness

Pleasure
I agree with this statement:"Life is short - eat dessert first."
In choosing what to do, I always take into account whether it will be pleasurable.
For me, the good life is the pleasureable life.
Meaning
I have a responsibility to make the world a better place.
What I do matters to society.
My life has a lasting meaning.
Engagement
Whether at work or play, I am usually "in a zone" and not conscious of myself.
Regardless of what I am doing, time passes very quickly.
I seek out situations that challenge my skills and abilities.

B. Target participant and conducting survey

The study chose college students at three national universities in Japan who were planning to receive teaching licenses for technical education as the target participants for the survey. The responders filled out the survey during lectures related to agriculture, such as "The Study and Practice of Cultivation" and "Practical Training Including Agricultural Work." There were 119 valid responses from the college students (71 male, 48 female) for analysis; however, the responses with omissions or errors were not used. The rate for valid responses was 96%. The survey was carried out from October to December of 2014.

Table -2 Attributes and numbers

Question No.	Attribute	Lower attributes	n
1	Gender	Male	71
		Female	48
2	Grade	1st	52
		2nd	23
		3rd	22
		4th	22
3	Hoping to work at the type of school	Elementary school	37
		Junior high school	38
		High school	35
		Multiple	6
4	Study form a agricultural working	Compulsory	57
		Compulsory elective	37
		The others	24
5	Study situation	Studied	61
		No study	58
6	Interest to the agricultural working of the family	Interest	51
		No interest	68
7	Experience of a agricultural working	Experienced	97
		No experience	22
8	Interest to agricultural working	Interest	80
		No interest	39



Figure-1. During a lecture



Figure -2. Agricultural work

III. RESULTS AND DISCUSSION

A. The total score of the feeling of happiness –

For the survey results, the total points for happiness were compared with such attributes as gender and year at school. A test for significant difference was also performed for the three orientations of happiness and for the attributes where a significant difference was noted in the total points (Table 3). T-test (t) is significant difference official approval of two means, and the analysis of variance (F) shows the result that enforced significant difference authorization about the plural means.

A significant difference was noted in total points in the attributes of year at school ($F(3,115)=3.02$), experiences with agricultural work ($t(27.37)=2.66$), and interest in agricultural work ($t(73.40)=2.31$). The results of multiple comparisons of years at school showed that the points for fourth year students were significantly higher second year students. The test results for significant difference also revealed that the university students with previous experience and interest in agriculture had higher total points.

Yet these results alone cannot help establish a causal relationship. These results *do* suggest that there is some sort of relationship between the sense of happiness and having an interest in or experience with agricultural work. One assumption is that the increase of interest in and experience of engaging in agriculture could help broaden one's sense of happiness and also support educational possibilities. On the other hand, happy people are capable of being interested in many things and gaining experience in those things. Having recognized the significant difference arising from students' years at school, there is the possibility that this relationship can be explained by students who have had many experiences over the years.

Therefore, these results have proven certain parts of that hypothesis of whether people become happy through agricultural work. Nonetheless, further experimental evidence will be necessary in order to establish a causal relationship.

Table-3. The total score of the feeling of happiness

Attribute	Lower attributes	n	Mean	SD	significant difference
Gender	Male	71	30.03	5.40	t(112.14)=0.23
	Female	48	31.13	4.47	
Grade	1st	52	30.79	4.01	F(3,115)=3.02* 4th>2nd
	2nd	23	28.39	5.98	
	3rd	22	29.73	5.52	
	4th	22	32.64	5.10	
Hoping to work at the type of school	Elementary school	37	30.46	5.03	F(3,112)=0.56
	Junior high school	38	29.68	5.74	
	High school	35	31.14	4.55	
	Multiple	6	29.50	3.45	
Study form a agricultural working	Compulsory	57	30.12	5.68	F(2,115)=1.54
	Compulsory elective	37	29.84	4.32	
	The others	24	32.00	4.24	
Study situation	Studied	61	30.41	5.58	t(117)=0.13
	No study	58	30.53	4.48	
Interest to the agricultural working of the family	Interest	51	30.90	5.50	t(98.01)=0.79
	No interest	68	30.15	4.71	
Experience of a agricultural working	Experienced	97	31.12	4.65	t(27.37)=2.66*
	No experience	22	27.59	5.83	
Interest to agricultural working	Interest	80	31.21	4.91	t(73.40)=2.31*
	No interest	39	28.95	5.06	

*:p \leq .05

B. The score of three intentionality of happiness

Tests for significant difference for the three types of happiness (*pleasure, meaning, and engagement*) were carried out in the categories of year at school, experience with agricultural work, and interest in agricultural work, where a significant difference in total happiness points had been noted (Table 4). T-test (t) is significant difference official approval of two means, and the analysis of variance (F) shows the result that enforced significant difference authorization about the plural means. The results showed a significant difference in year at school ($F(3,115)=4.83$) and previous experience with agriculture ($F(1,117)=8.24$) for *meaning-oriented happiness* and in interest in agricultural work for *pleasure-oriented happiness* ($F(1,117)=4.10$), *meaning-oriented happiness* ($F(1,117)=15.32$), and *engagement-oriented happiness* ($F(1,117)=7.91$), all three orientations of happiness. In the multiple comparisons of year at school, second year students scored lower in *meaning-oriented happiness* than either fourth or first year students.

These results suggest that the way to form *meaning-oriented happiness* is an important factor. Some of the question items include "I have a personal responsibility to make the world a better place", "What I do is important for society", and "There is a solid sense of meaning in my life." This suggests that there is a fixed relationship between agricultural work and the formation of *meaning-oriented happiness*. Just as with total points for happiness, we cannot establish a causal relationship at the present time; however, this supports the part of our hypothesis that "people can become happy through agricultural experience," especially the part concerning *meaning-oriented happiness*.

In the educational field, understanding how to help children form these types of happiness is an important goal. Therefore, there is a necessity to verify in practice which curricula, teaching materials, and methods of educational guidance help to form happiness. It is also critical to think that the school teacher has already formed a sense of happiness in order for the children to gain this sort of happiness. As one effective method for this, this study suggests the increase of the number of agricultural experiences.

Table-4. The score of three intentionality of happiness

Attribute	Lower attributes	n		Pleasure	Meaning	Engagement	
Grade	1st	52	Mean	10.87	10.19	9.73	
			SD	2.43	2.61	2.34	
	2nd	23	Mean	11.17	8.00	9.22	
			SD	3.38	2.45	2.94	
	3rd	22	Mean	11.18	9.55	9.00	
			SD	2.97	2.77	2.37	
	4th	22	Mean	12.09	10.55	10.00	
			SD	2.29	2.35	3.02	
	F				F(3,115)=1.05	F(3,115)=4.83	F(3,115)=0.76
	significant difference				n.s.	**	n.s.
	experience of a agricultural working	Experienced	97	Mean	11.35	10.04	9.73
				SD	2.67	2.62	2.54
No experience		22	Mean	10.59	8.27	8.73	
			SD	2.89	2.57	2.73	
F				F(1,117)=1.41	F(1,117)=8.24	F(1,117)=2.73	
significant difference				n.s.	**	n.s.	
Interest to agricultural working	Interest	80	Mean	10.86	10.35	10.00	
			SD	2.79	2.39	2.32	
	No interest	39	Mean	11.92	8.41	8.62	
			SD	2.44	2.83	2.90	
	F				F(1,117)=4.10	F(1,117)=15.32	F(1,117)=7.91
	significant difference				*	**	**

** : p<.01 * : p<.05 n.s.:no significant difference

IV.CONCLUSIONS

This study proposes the hypothesis: "Can people become happy through agricultural work?" This paper aims to elucidate the actual level of happiness of college students studying agricultural education in their agricultural experiences.

As the methods for the study, the paper carried out a survey on *Agriculture and Happiness*, and performed an analysis of the valid responses of 119 college students on the relationship between each attribute listed in the survey and a sense of happiness. The following was made clear in the results.

- 1) College students who had a previous experience with and an interest in agricultural work scored highly on total points of happiness.
- 2) The way to form the *meaning-oriented sense of happiness* through agricultural work was an important factor.

As stated above, it can be seen that part of our hypothesis that people can become happy through agricultural work, was supported after analyzing the relationship between happiness and attributes related to the agricultural work of college students. Further experimental evidence will be needed to also establish a causal relationship.

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REFERENCES

- [1] Cabinet Office of Japan, "Investigation the level of happiness", <http://www5.cao.go.jp/seikatsu/senkoudo/senkoudo.html>, searched, 10, July 2010.

- [2] Sustainable Development Solutions Network (SDSN), “The world happiness report”, <http://worldhappiness.report/> searched, 10, July 2015.
- [3] Martin E.P. Seligman, Positive Psychology Center, <http://www.ppc.sas.upenn.edu/index.html>, searched, 5, May, 2015
- [4] Michiko Kumano, “Orientations to happiness in Japanese people: Pleasure, meaning and engagement”, The Japanese Psychological Association, 81(6), 619-624, 2011
- [5] Ministry of Education, Culture, Sports, Science and Technology (2008). Course of Study for Junior High Schools: Industrial Arts and Homemaking. Tokyo: Kyoiku Toshō. p. 28,2008
- [6] Japan's Ministry of Agriculture, Forestry and Fisheries, “multiple functions of agriculture and rural areas”, http://www.maff.go.jp/j/nousin/noukan/nougyo_kinou/, searched, 5, May, 2015
- [7] Kotobank, <https://kotobank.jp/word/>, searched, 5, May, 2015
- [8] Christopher Peterson, Nansook Park, Martin E. P. Seligman, Orientations to happiness and life satisfaction: the full life versus the empty life, Journal of Happiness Studies, Volume 6, Issue 1, pp 25-41, 2005